Pre hearing correspondance
and schedules.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10772

APPLICATION OF BARBER OIL INC.
FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO

PRE-HEARING STATEMENT

This pre-hearing statement is submitted by SNYDER RANCHES INC. as required by the Oil Conservation Division.

APPEARANCE OF PARTIES

APPLICANT	APPLICANT ATTORNEY
Barber Oil Inc.	William F. Carr, Esq. P. O. Box 2208 Santa Fe, New Mexico 87501 (505) 988-4421
OPPOSITION PARTY	**ATTORNEY**
Snyder Ranches Inc. P. O. Box 2158 Hobbs, New Mexico 88241 Attn: Larry C. Squires (505) 393-7544	W. Thomas Kellahin KELLAHIN AND KELLAHIN P.O. Box 2265 Santa Fe, NM 87504 (505) 982-4285

STATEMENT OF CASE

OPPOSITION PARTY:

Snyder Ranches Inc. is the owner of the "Woods Ranch" and has a domestic water well immediately adjacent to the Barber Oil Company's Stovall-Wood Well No 5 which is a shallow salt water disposal well and the subject of this application.

The subject salt water disposal well has contaminated the Woods Ranch domestic water well to such an extent that it can no longer be used for domestic or stock watering purposes.

The Division should deny the application of Barber Oil Company in order to prevent further contamination of the shallow ground water in this area.

PROPOSED EVIDENCE

OPPOSITION PARTY

WITNESSES	EST. TIME	EXHIBITS
Tim E. Kelly (hydrogeologist)	60 min.	8-10 exhibits

PROCEDURAL MATTERS

None applicable at this time.

KELLAHIN AND KELLAHIN

By: _____
W. Thomas Kellahin
P.O. Box 2265
Santa Fe, New Mexico 87504
(505) 982-4285

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT
DAVID B. LAWRENZ

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE I - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

October 15, 1993

HAND-DELIVERED

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 10772:
Application of Barber Oil Inc., for salt water disposal, Eddy County, New Mexico

Dear Mr. LeMay:

Barber Oil Inc., respectfully requests that this matter which is currently set on the Division docket for the October 21, 1993 hearings be continued to the November 4, 1993 Examiner docket.

Your attention to this matter is appreciated.

Very truly yours,

WILLIAM F. CARR
WFC:mlh
cc: Bob Light
Barber Oil Inc.
Post Office Box 1658
Carlsbad, NM 88221-1658

DOCKET: EXAMINER HEARING - THURSDAY - OCTOBER 21, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 32-93 and 33-93 are tentatively set for November 4, 1993 and November 18, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before Michael E. Stogner, Examiner or David R. Catanach, Alternate Examiner:

CASE 10280: **(Reopened - Continued from September 23, 1993, Examiner Hearing.)**

In the matter of Case No. 10280 being reopened pursuant to the provisions of Division Order No. R-9594, which order promulgated temporary special rules and regulations for the Milnesand-Abo Pool in Lea and Roosevelt Counties, New Mexico, including a provision for 80-acre spacing. Operators in the subject pool should be prepared to appear and show cause why the Temporary Special Pool Rules for the Milnesand-Abo Pool should not be rescinded and said pool not be developed on 40-acre spacing units.

CASE 10687: **(Continued from September 23, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 500 feet below the top of the San Andres formation to the base of the Morrow formation underlying the following described areas in Section 17, Township 18 South, Range 28 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; and the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Illinois Camp "17" State Well No. 2, to be drilled at a standard location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles north of Illinois Camp.

CASE 10829: **(Continued from October 7, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation, underlying the following described areas in Section 32, Township 18 South, Range 34 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and the W/2 SE/4 forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing within said vertical extent, including the EK-Bone Spring Pool. Said unit is to be dedicated to the applicant's Larica 32 State Well No. 1, to be drilled at an orthodox location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located approximately 7.5 miles west of Arkansas Junction.

CASE 10850: **Application of Hallwood Petroleum, Inc. for compulsory pooling, San Juan County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Pictured Cliffs formation underlying the W/2 of Section 14, Township 29 North, Range 13 West. Said unit is be dedicated to a well to be drilled at a standard location in the W/2 of said Section 14 to test any and all formations to the base of the Pictured Cliffs formation including the Fruitland formation, Basin-Fruitland Coal Gas Pool and the Pictured Cliffs formation, West Kutz-Pictured Cliffs Pool. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 5 miles south of Berry Park.

CASE 10851: **Application of Hallwood Petroleum, Inc. for compulsory pooling, San Juan County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Pictured Cliffs formation underlying the S/2 of Section 28, Township 30 North, Range 12 West. Said unit is be dedicated to a well to be drilled at a standard location in the S/2 of said Section 28 to test any and all formations to the base of the Pictured Cliffs formation including the Fruitland formation, Basin-Fruitland Coal Gas Pool and the pictured Cliffs formation, Fulcher Kutz-Pictured Cliffs Pool. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 1 mile south of Farmington Lake.

CASE 10772: **(Continued from October 7, 1993, Examiner Hearing.)**

Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10812: **(Continued from October 7, 1993, Examiner Hearing.)**

Application of Giant Exploration & Production Company for compulsory pooling, San Juan County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Basin-Fruitland Coal Gas Pool, underlying the N/2 of Section 33, Township 26 North, Range 11 West, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes only the Basin Fruitland Coal Gas Pool. Said unit is to be dedicated to a well to be drilled at a standard location thereon in said Section 33. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located near the Huerfano Boarding School.

CASE 10852: **Application of McKay Oil Corporation for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests in the Wolfcamp formation underlying the N/2 of Section 25, Township 20 South, Range 24 East, forming a standard 320-acre spacing and proration unit for the Wolfcamp production from said well. Said unit is to be dedicated to the re-entry of its Charolette McKay Federal Com Well No. 3 which is located in Unit C of said Section 25. Applicant further proposes that it be designated the operator and that the Division consider the costs of reentering and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision and a charge for risk involved in reentering and completing said well. Said well is located approximately 20 miles southwest from Artesia, New Mexico.

CASE 10853: **Application of Matador Petroleum Corporation for an unorthodox gas well location, Chaves County, New Mexico.** Applicant seeks approval of an unorthodox gas well location 660 feet from the North and East lines (Unit A) of Section 30, Township 15 South, Range 28 East, for production from any formation and/or pool developed on 320-acre gas proration and spacing units including but not limited to the Buffalo Valley-Pennsylvanian Gas Pool. The N/2 of said Section 30 will be dedicated to the well forming a standard 320-acre gas spacing and proration unit for said pool(s). Said unit is located approximately 3 miles northwest of Nakee Ishee Lake, New Mexico.

CASE 10854: **Application of Phillips Petroleum Company for a special oil allowable for the Cabin-Lake Delaware Pool, Eddy County, New Mexico.** Applicant seeks an order establishing a special oil allowable of 187 barrels of oil per day at a 2,000 to 1 GOR for the Cabin lake-Delaware Pool located in portions of Townships 21 and 22 South, Range 30 East. Applicant further seeks the cancellation of any overproduction charged against any well in the pool as of the effective date of any order entered in this case. This pool is in the Nash Draw area and its center is located approximately 1 mile north of Smith, New Mexico.

CASE 10830: **(Readvertised)**

Application of Conoco, Inc. for special pool rules or, in the alternative, for a temporary special testing allowable, Lea County, New Mexico. Applicant seeks an order promulgating special pool rules for the Paddock Pool, located in portions of Townships 21 and 22 South, Ranges 36, 37 and 38 East, including a provision for a limiting gas-oil ratio of 6,000 cubic feet of gas per barrel of oil. IN THE ALTERNATIVE, the applicant seeks an order establishing a special one-year testing allowable for its Lockhart A-27 Lease comprising the N/2 of Section 27, Township 21 South, Range 37 East, whereby each pool well in the project area may be produced at its capacity up to a limiting gas-oil ratio of 6000 to one; further any production in excess of the limits set forth in General Rules 505 and 506 would not constitute overproduction for the one-year testing period. Said project area is located approximately one mile northeast of Eunice, New Mexico.

CASE 10855: **Application of Meridian Oil Inc. to amend Division Order No. R-9921, San Juan County, New Mexico.** Applicant seeks to amend Division Order No. R-9921, dated July 9, 1993, specifically those provisions which established an economic limit for downhole commingling gas production from the Ballard-Pictured Cliffs Pool and the Basin-Fruitland Coal Gas Pool within the wellbores of its existing Huerfano Unit Well No. 46 located in the SW/4 (Unit K) and the W/2 of Section 23, Township 26 North, Range 9 West, and its Huerfano Unit Well No. 59 located in the NE/4 (Unit B) and the N/2 of Section 26, Township 26 North, Range 9 West, and from the West Kutz-Pictured Cliffs Pool and the Basin-Fruitland Coal Gas Pool within the wellbore to be drilled for the Huerfano Unit Well No. 549 to be located in the NE/4 (Unit A) and the E/2 of Section 33 Township 27 North, Range 10 West, with the identified 320-acre spacing and proration unit for the Basin-Fruitland Coal Gas Pool and the corresponding 160-acre spacing and proration unit for the Pictured Cliffs production to be dedicated to each said well as indicated above. Said wells are located in an area approximately 13 miles north of Nageezi, New Mexico.

CASE 10848: **(Continued from October 7, 1993, Examiner Hearing.)**

Application of Conoco Inc. and Marathon Oil Company for exceptions to Rule 5(b) of the special rules and regulations of the South Dagger Draw-Upper Pennsylvanian Pool as promulgated by Division Order No. R-5353, as amended, or in the alternative, for the creation of a new pool with the adoption of special rules for said pool, Eddy County, New Mexico Applicants seek exceptions to Rule 5(b) of the Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvania Pool as promulgated by Order No. R-5353 as amended, thereby authorizing simultaneous dedication of acreage to both gas well and oil wells within Sections 34, 35, and 36, Township 20 South, Range 24 East and Sections 34, 35, and 36, Township 20-1/2 South, Range 23 East. In the alternative, applicants seek the contraction of the South Dagger Draw-Upper Pennsylvanian Pool and the concomitant creation of a new pool comprising the above-described acreage with the adoption of special rules and regulations including those set forth in Order No. R-5353 but modified to allow simultaneous dedication of spacing units to multiple gas and oil wells and establishment of appropriate allowables therefor. Said area is located approximately 22 miles southeast of Hope, New Mexico.

DOCKET: EXAMINER HEARING - THURSDAY - OCTOBER 7, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 31-93 and 32-93 are tentatively set for October 21, 1993 and November 4, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before David R. Catanach, Examiner or Michael E. Stogner, Alternate Examiner:

CASE 10812: **(Continued from September 23, 1993, Examiner Hearing.)**

Application of Giant Exploration & Production Company for compulsory pooling, San Juan County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Basin-Fruitland Coal Gas Pool, underlying the N/2 of Section 33, Township 26 North, Range 11 West, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes only the Basin Fruitland Coal Gas Pool. Said unit is to be dedicated to a well to be drilled at a standard location thereon in said Section 33. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located near the Huerfano Boarding School.

CASE 10833: **(Continued from September 23, 1993, Examiner Hearing.)**

Application of Giant Exploration & Production Company for an unorthodox infill coal gas well location, San Juan County, New Mexico. Applicant seeks approval of an unorthodox coal gas well location 1850 feet from the South line and 790 feet from the East line of Section 29, Township 25 North, Range 12 West, Basin-Fruitland Coal (Gas) Pool. Further, the applicant seeks an exception to the requirements of Rule No. 4 of the Special Rules and Regulations for said Basin-Fruitland Coal (Gas) Pool as promulgated by Division Order No. R-8768, as amended, to allow the drilling of a second well on a standard 320-acre spacing and proration unit comprising the E/2 of said Section 29. Said unit is located approximately 8 miles south of Chaco Plant.

CASE 10711: **(Reopened)**

In the matter of Case No. 10711 being reopened upon the application of Yates Petroleum Corporation for a new well location in the waterflood project approved for its Creek "AL" Federal Lease by Division Order No. R-9896, issued in Case 10711 on May 18, 1993. Applicant also seeks the establishment of an administrative procedure for the approval of additional well locations within this project. The Creek "AL" Federal Lease is located in the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24, and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, which is located approximately 6 miles east of Walters Lake.

CASE 10836: **Application of Santa Fe Energy Operating Partners, L.P. for an unorthodox oil well location, Lea County, New Mexico.** Applicant seeks approval to drill its Kachina "5" Well No. 5 at an unorthodox oil well location 660 feet from the South line and 990 feet from the West line (Unit M) of Section 5, Township 18 South, Range 33 East, to test the Wolfcamp formation, South Corbin-Wolfcamp Pool. The S/2 SW/4 of said Section 5 will be dedicated to the well forming a standard 80-acre oil spacing and proration unit for said pool. Said well is located approximately 7 miles southeast of Maljamar, New Mexico.

CASE 10837: **Application of Santa Fe Energy Operating Partners, L.P. for an unorthodox gas well location, Eddy County, New Mexico.** Applicant seeks approval to drill its North Pure Gold "9" Fed. Well No. 2 at an unorthodox gas well location 660 feet from the South and West lines (Unit M) of Section 9, Township 23 South, Range 31 East, to test the Atoka and Morrow formations, Undesignated Los Medanos-Morrow Gas Pool, West Sand Dunes-Atoka Gas Pool, and Undesignated West Sand Dunes-Morrow Gas Pool. The S/2 of said Section 9 will be dedicated to the well forming a standard 320-acre gas spacing and proration unit for said pool(s). Said well is located approximately 11 miles southeast of Lindsey Lake.

CASE 10775: **(Continued from September 9, 1993, examiner Hearing.)**

Application of Santa Fe Energy Operating Partners, L.P. for an unorthodox infill gas well location and simultaneous dedication, Eddy County, New Mexico. Applicant seeks approval of an unorthodox well location 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 1, Township 24 South, Range 28 East, Malaga-Atoka Gas Pool. Further, the applicant seeks an exception to Division General Rule 104.c(2) to allow the existing 320-acre gas spacing and proration unit comprising the S/2 of said Section 1 to be simultaneously dedicated in the Malaga-Atoka Gas Pool to the proposed well and to the existing Malaga Federal 1 Well No. 1 located at a standard gas well location 660 feet from the South line and 1980 feet from the West line (Unit N) of said Section 1. Said unit is located approximately 2 miles northeast of Malaga, New Mexico.

CASE 10829: **(Continued from September 23, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Lea County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Morrow formation, underlying the following described areas in Section 32, Township 18 South, Range 34 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and the W/2 SE/4 forming a standard 80-acre oil spacing and proration unit for any and all formations and/or pools developed on 80-acre spacing within said vertical extent, including the EK-Bone Spring Pool. Said unit is to be dedicated to the applicant's Larica 32 State Well No. 1, to be drilled at an orthodox location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located approximately 7.5 miles west of Arkansas Junction.

CASE 10838: **Application of Harvey E. Yates Company for an unorthodox oil well location, Lea County, New Mexico.** Applicant seeks authorization to drill its Young Deep Unit Well No. 21 at an unorthodox oil well location 1330 feet from the South and West lines (Unit K) of Section 3, Township 18 South, Range 32 East, to test the Undesignated Young-Wolfcamp Pool. The NE/4 SW/4 of Section 3 is to be dedicated to the above-described well forming a standard 40-acre oil spacing and proration unit for said pool. Said well is located approximately 6 miles south of Maljamar, New Mexico.

CASE 10839: **Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico.** Applicant seeks an order pooling all mineral interests in the Morrow formation underlying the E/2 of Section 28, Township 18 South, Range 34 East, forming a standard 320-acre gas spacing and proration unit for any Morrow Pools within said vertical extent which presently includes the Undesignated West La Rica-Morrow Gas Pool. Said unit is to be dedicated to its Ekay 28 State Well No. 1, to be drilled at an orthodox location within Unit J of said E/2 proration unit, 2050 feet from the South line and 1800 feet from the East line of said Section 28. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said unit is located approximately 12 miles southeast of Maljamar, New Mexico.

CASE 10840: **Application of Harvey E. Yates Company for compulsory pooling, Lea County, New Mexico.** Applicant seeks an order pooling all mineral interests in the Morrow formation underlying the W/2 of Section 28, Township 18 South, Range 34 East, forming a standard 320-acre gas spacing and proration unit for any Morrow Pools within said vertical extent which presently includes the Undesignated West La Rica-Morrow Gas Pool. Said unit is to be dedicated to its Ekay 28 State Well No. 4, to be drilled at an orthodox location within Unit K of said W/2 proration unit, 1980 feet from the South and West lines of said Section 28. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said unit is located approximately 12 miles southeast of Maljamar, New Mexico.

CASE 10841: **Application of Yates Petroleum Corporation for compulsory pooling, Lea County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Canyon formation underlying the SW/4 SW/4 of Section 1, Township 14 South, Range 33 East forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent which presently includes the Undesignated Saunders Permo-Upper Pennsylvanian Pool. Said unit is to be dedicated to its Childress "AKV" Well No. 1 to be drilled at a standard location 990 feet from the South line and 330 feet from the West line (Unit M) of said Section 1. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said area is located approximately 20 miles southeast of Caprock, New Mexico.

CASE 10842: **Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.** Applicant seeks authorization to drill its Hickory "ALV" Federal Well No. 3 at a location 2166 feet from the South line and 2253 feet from the West line (Unit K) of Section 17, Township 22 South, Range 24 East, to test the Upper Pennsylvanian formation, Indian Basin-Upper Pennsylvanian Associated Pool. The W/2 of Section 17 is to be dedicated to said well forming a standard 320-acre gas spacing and proration unit. Said unit is located approximately 8 miles southeast of Carlsbad, New Mexico.

CASE 10772: **(Continued from September 9, 1993, Examiner Hearing.)**

Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10843: **Application of Meridian Oil Inc. for a high angle/horizontal directional drilling pilot project, an unorthodox oil well location, a non-standard oil proration unit, a special project allowable, and special operating rules therefor, San Juan County, New Mexico.** Applicant seeks to initiate a high angle/horizontal directional drilling pilot project in the Gallup formation, Horseshoe Gallup Oil Pool, underlying the E/2 of Section 18, Township 30 North, Range 15 West. Applicant proposes to drill its Black Diamond Com 18 Well No. 1 by commencing at a standard well location in Unit B of Section 18, then kicking-off from vertical in a southeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of a non-standard spacing and proration unit consisting of the E/2 of said Section 18, an unorthodox oil well location, and for a special project allowable. Said project is located approximately 4-1/2 miles north-northeast of Waterflow, New Mexico.

CASE 10844: **Application of Meridian Oil Inc. for a high angle/horizontal directional drilling pilot project, an unorthodox oil well location, a non-standard oil proration unit, a special project allowable, and special operating rules therefor, San Juan County, New Mexico.** Applicant seeks to initiate a high angle/horizontal directional drilling pilot project in the Gallup formation, Horseshoe Gallup Oil Pool, underlying the W/2 of Section 8, Township 30 North, Range 15 West. Applicant proposes to drill its Black Diamond Com 8 Well No. 1 by commencing at a standard well location in Unit D of Section 8, then kicking-off from vertical in a southeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of a non-standard spacing and proration unit consisting of the W/2 of said Section 8, an unorthodox oil well location, and for a special project allowable. Said project is located approximately 5-1/2 miles north-northeast of Waterflow, New Mexico.

CASE 10781: **(Reopened - Continued from September 23, 1993, Examiner Hearing.)**

Application of Marathon Oil Company for an unorthodox coal gas well location, San Juan County, New Mexico. Applicant seeks approval of an unorthodox well location in the Basin-Fruitland Coal Gas Pool for its proposed Schwerdtfeger Well No. 17-2 to be drilled at an unorthodox well location 1605 feet from the South line and 1135 feet from the East line (Unit I) of Section 17, Township 27 North, Range 11 West. Said well is to be dedicated to a 320-acre spacing unit consisting of the E/2 of Section 17. Said unit is located approximately 9 miles south of Bloomfield, New Mexico.

CASE 10845: **Application of Phillips Petroleum Company for a unit agreement, Lea County, New Mexico.** Applicant seeks approval of its Vacuum Glorieta East Unit Agreement for an area comprising 4,239.80 acres, more or less, of State lands in portions of Sections 26-34, Township 17 South, Range 35 East and in a portion of Section 5, Township 18 South, Range 35 East. Said unit is located approximately 10 miles southeast of Lovington, New Mexico.

CASE 10846: **Application of Phillips Petroleum Company for approval of a waterflood project, and to qualify said project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act", Lea County, New Mexico.** Applicant seeks authority to institute a waterflood project within its Vacuum Glorieta East Unit by the injection of water into the Glorieta and Paddock formations, Vacuum-Glorieta Pool, in an area comprising portions of Sections 26-34, Township 17 South, Range 35 East and a portion of Section 5, Township 18 South, Range 35 East, through 48 initial injection wells. The applicant further requests that the Division establish procedures for amending injection or producing well locations within the unit area without the necessity of further hearings and the adoption of any provisions necessary for such other matters as may be appropriate for said waterflood operations. Applicant further seeks to qualify this project for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Said project is located approximately 10 miles southeast of Lovington, New Mexico.

CASE 10847: **Application of Mitchell Energy Corporation for an exception to Rule (2) of the Special Rules and Regulations for the North Osudo-Morrow Gas Pool to allow a second well on a proration unit, or in the alternative, to establish infill drilling procedures for said pool, Lea County, New Mexico.** Applicant seeks an exception to Rule (2) of the Special Rules and Regulations for the North Osudo-Morrow Gas Pool, as promulgated by Division Order No. R-3305, to allow an existing 640-acre gas spacing and proration unit comprising Section 30, Township 20 South, Range 36 East, to be simultaneously dedicated to a proposed well to be drilled at a standard well location in the NE/4 SW/4 of Section 30 and to an existing well located in the NE/4 NE/4 of Section 30. In the alternative, applicant seeks to amend Rule (2) of the Special Rules and Regulations for said pool to provide that a second well may be drilled within a standard 640-acre spacing unit but on a governmental quarter section not containing the first well. The North Osudo-Morrow Gas Pool is located approximately 6 miles southwest of Monument, New Mexico.

CASE 10848: **Application of Conoco Inc. and Marathon Oil Company for exceptions to Rule 5(b) of the special rules and regulations of the South Dagger Draw-Upper Pennsylvanian Pool as promulgated by Division Order No. R-5353, as amended, or in the alternative, for the creation of a new pool with the adoption of special rules for said pool, Eddy County, New Mexico.** Applicants seek exceptions to Rule 5(b) of the Special Rules and Regulations for the South Dagger Draw-Upper Pennsylvanian Pool as promulgated by Order No. R-5353 as amended, thereby authorizing simultaneous dedication of acreage to both gas wells and oil wells within Sections 34, 35, and 36, Township 20 South, Range 24 East and Sections 34, 35, and 36, Township 20-1/2 South, Range 23 East. In the alternative, applicants seek the contraction of the South Dagger Draw-Upper Pennsylvanian Pool and the concomitant creation of a new pool comprising the above-described acreage with the adoption of special rules and regulations including those set forth in Order No. R-5353 but modified to allow simultaneous dedication of spacing units to multiple gas and oil wells and establishment of appropriate allowables therefor. Said area is located approximately 22 miles southeast of Hope, New Mexico.

DOCKET: COMMISSION HEARING - THURSDAY - OCTOBER 14, 1993
9:00 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
The Land Commissioner's designee for this hearing will be Jami Bailey

CASE 10498: **(De Novo - Continued from September 22, 1993, Commission Hearing.)**

In the matter of Case No. 10498 being reopened upon application of Monty D. McLane to exempt certain working interests from the compulsory pooling provisions of Division Order No. R-9690, Lea County, New Mexico. Division Order No. R-9690, issued in Case 10498 and dated July 1, 1992, granted the application of Charles Gillespie to compulsorily pool all mineral interests from the surface to the base of the Strawn formation underlying Lot 3 of Section 1, Township 16 South, Range 35 East, forming a non-standard 51.08-acre oil spacing and proration unit. Said unit is to be dedicated to a well to be drilled at a standard oil well location thereon. At this time Monty D. McLane requests the Division enter an order reopening Case No. 10498 and declare that the working interests of Henry H. Lawton and Amanda K. Parks are not subject to said Order No. R-9690. Upon application of Charles B. Gillespie Jr., this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 10849: **Application of Amoco Production Company for amendment of the deliverability testing rules for the Prorated Gas Pools of Northwest New Mexico, (Blanco-Mesaverde, Basin-Dakota, Tapacito-Pictured Cliffs, and South Blanco-Pictured Cliffs Pools), Rio Arriba, Sandoval and San Juan Counties, New Mexico.** Applicant seeks an order amending the General Rules for the Prorated Gas Pools of New Mexico (Order No. R-8170-H) and the Rules of Procedures for Northwest New Mexico (Order No. R-333-I) to exempt from deliverability testing those wells in marginal gas proration units which cannot produce the acreage portion of the monthly gas allowable assigned by the Division to the gas proration unit.

CASE 10719: **(De Novo - Continued from September 22, 1993, Commission Hearing).**

Application of Anadarko Petroleum Corporation for directional drilling and an unorthodox bottomhole gas well location, Eddy County, New Mexico. Applicant seeks authority to directionally drill its proposed Power Federal Com Well No. 2 from a surface location 1400 feet from the South line and 660 feet from the East line (Unit I) of Section 26, Township 17 South, Range 30 East, in such a manner as to bottom the well in the Cedar Lake-Morrow Gas Pool at an unorthodox subsurface gas well location within 75 feet of a point 660 feet from the South and East lines (Unit P) of said Section 26. The E/2 of said Section 26 is to be dedicated to said well forming a standard 320-acre gas spacing and proration unit for said pool. Said unit is located approximately 3 miles east-southeast of Loco Hills, New Mexico. Upon application of Anadarko Petroleum Company, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 10796: **(De Novo)**

Application of Manzano Oil Corporation for an unorthodox gas well location, Lea County, New Mexico. Applicant seeks approval of an unorthodox location in the Wolfcamp formation, Osudo-Wolfcamp Pool, for its Neuhaus Federal Well No. 2 which has been drilled 660 feet from the North line and 1650 feet from the East line (Unit B) of Section 14, Township 20 South, Range 35 East. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Wolfcamp, spaced on 320 acres. Said well is located approximately 17 miles southwest of Hobbs, New Mexico. Upon application of Manzano Oil Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 10653: **(Continued from July 22, 1993, Commission Hearing.)**

Application of Armstrong Energy Corporation for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order promulgating special rules and regulations for the Northeast Lea-Delaware Pool including a provision for a special oil allowable of 300 barrels of oil per day. Said pool is located in portions of Townships 19 and 20 South, Range 34 East, located near the Warren Gas Company Compressor Station.

CASE 10773: **(Continued from July 22, 1993, Commission Hearing.)**

Application of Armstrong Energy Corporation for pool extension and abolishment, Lea County, New Mexico. Applicant, in the above-styled cause, and in association with De Novo Case No. 10653, seeks to abolish the Quail Ridge-Delawre Pool comprising the SW/4 of Section 3, SE/4 of Section 4, NE/4 of Section 9, N/2 and SW/4 of Section 10, all in Township 20 South, Range 34 East and the concomitant extension of the horizontal limits of the Northeast Lea-Delaware Pool to include all of above-described acreage plus the SE/4 of said Section 3. This area is centered approximately 1.5 miles south of U.S. Highway 62/180 at Milemarker No. 79.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 10772

APPLICATION OF BARBER OIL INC.
FOR SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.

PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Campbell, Carr, Berge & Sheridan, P.A., as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT	ATTORNEY
Barber Oil Inc. c/o Bob Light Post Office Box 1658 Carlsbad, New Mexico 88221-1658	William F. Carr, Esq. Campbell, Carr, Berge & Sheridan, P.A. Post Office Box 2208 Santa Fe, New Mexico 87504
(505) 887-2566 name, address, phone and contact person	(505) 988-4421
OPPOSITION OR OTHER PARTY	ATTORNEY
_____ _____ _____ _____	_____ _____ _____ _____
_____ name, address, phone and contact person	_____

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

Barber Oil Inc., applicant in the above-captioned cause, seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet.

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
Mike Garringer	15 Min.	Approximately 2

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to hearing)

Signature

DOCKET: EXAMINER HEARING - THURSDAY - SEPTEMBER 9, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 27-93 and 28-93 are tentatively set for September 23, 1993 and October 7, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before David R. Catanach, Examiner or Michael E. Stogner, Alternate Examiner:

CASE 10811: **(This case will be continued to September 23, 1993.)**

Application of Giant Exploration & Production Company for an unorthodox oil well location, Santa Fe County, New Mexico. Applicant seeks approval of an unorthodox oil well location 1300 feet from the South line and 1000 feet from the West line (Unit M) of Section 10, Township 20 North, Range 9 East, to test the Pennsylvanian formation. The SW/4 SW/4 of said Section 10 is to be dedicated to said well. Said well is located approximately 2 miles southwest of El Patrero, New Mexico.

CASE 10812: **(This case will be continued to September 23, 1993.)**

Application of Giant Exploration & Production Company for compulsory pooling, San Juan County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Basin-Fruitland Coal Gas Pool, underlying the N/2 of Section 33, Township 26 North, Range 11 West, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes only the Basin Fruitland Coal Gas Pool. Said unit is to be dedicated to a well to be drilled at a standard location thereon in said Section 33. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located near the Huerfano Boarding School.

CASE 10800: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Merrion Oil & Gas Corporation for compulsory pooling, San Juan County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Basin-Fruitland Coal (Gas) formation, underlying the E/2 of Section 26, Township 26 North, Range 13 West, forming a standard 320-acre coal gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, including the Basin-Fruitland Coal Gas Pool. Said unit is to be dedicated to its Serendipity Well No. 1 to be recompleted at a standard coal gas well location 1650 feet from the South line and 2310 feet from the East line of said Section 26. Also to be considered will be the cost of recompleting said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in recompleting said well. Said well is located approximately 3 miles southeast of the Chaco Gas Plant.

CASE 10813: **Application of Arco Oil & Gas Company for approval of the conversion of sixteen wells in the Empire Abo Unit to injection, Eddy County, New Mexico.** Applicant seeks approval to convert sixteen wells to injection in the Empire Abo Unit which is located in portions of Townships 17 and 18 South, Ranges 27, 28 and 29 East. This unit is located approximately 6 to 12 miles east of Artesia, New Mexico.

CASE 10711: **(Reopened)**

In the matter of Case No. 10711 being reopened upon the application of Yates Petroleum Corporation for new injection well locations in the waterflood project approved for its Creek "AL" Federal Lease by Division Order No. R-9896, issued in Case 10711 on May 18, 1993. The Creek "AL" Federal Lease is located in the E/2 SE/4 of Section 23, the NW/4 SW/4 and S/2 S/2 of Section 24 and the NW/4 and E/2 NE/4 of Section 25, Township 18 South, Range 30 East, which is located approximately 6 miles east of Walters Lake.

CASE 10805: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Collins & Ware, Inc. for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico. Applicant seeks approval of an unorthodox gas well location 710 feet from the South and East lines (Unit P) of Section 25, Township 23 South, Range 28 East, South Culebra Bluff-Atoka Gas Pool. In addition, the applicant seeks an exception to Division General Rule 104(c)(2) to allow the existing 320-acre gas spacing and proration unit comprising the S/2 of said Section 25 to be simultaneously dedicated in this pool to the proposed well and to the existing Ray "25" Well No. 1 located at a standard gas well location 897 feet from the South line and 1980 feet from the West line (Unit N) of said Section 25. Said unit is located approximately 3.5 miles east by southeast of Loving, New Mexico.

CASE 10814: **Application of Collins & Ware, Inc. for a high angle/horizontal directional drilling pilot project and special operating rules therefor, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the SW/4 SE/4 of Section 26, Township 14 South, Range 37 East. Applicant proposes to re-enter its S. & J. Operating T.D. Pope Well No. 14 at an orthodox surface location 660 feet from the South line and 1980 feet from the East line (Unit O) of Section 26, kick-off from vertical in a southeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located near Prairieview.

CASE 10815: **Application of Collins & Ware, Inc. for a high angle/horizontal directional drilling pilot project and special operating rules therefor, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the NE/4 NE/4 of Section 35, Township 14 South, Range 37 East. Applicant proposes to re-enter its S. & J. Operating, J.D. Pope Well No. 21 at an orthodox surface location 660 feet from the North and East lines (Unit A) of said Section 35, kick-off from vertical in a northeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 2 miles southeast of Prairieview.

CASE 10816: **Application of Collins & Ware, Inc. for a high angle/horizontal directional drilling pilot project and special operating rules therefor, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the NW/4 NW/4 of Section 36, Township 14 South, Range 37 East. Applicant proposes to re-enter its Polaris Pope Well No. 6 at an orthodox surface location 660 feet from the North line and 330 feet from the West line (Unit D) of said Section 36, kick-off from vertical in a southeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 2 miles southeast of Prairieview.

CASE 10772: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10766: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and non-standard gas spacing unit, Lea County, New Mexico. Applicant seeks authorization to drill a well at an unorthodox location 1980 feet from the North line and 1650 feet from the West line (Unit F) of Section 11, Township 21 South, Range 36 East, Eumont Gas Pool. Applicant also seeks authority to dedicate a non-standard spacing unit comprised of the SE/4 NW/4, S/2 NE/4 and the NW/4 SE/4 of said Section 11 to said well. Said unit is located approximately 1 mile east of Oil Center, New Mexico.

CASE 10795: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and a non-standard spacing unit, Lea County, New Mexico. Applicant seeks authorization to drill its Foster Well No. 3 in the Eumont Gas Pool at an unorthodox gas well location 330 feet from the South and East lines (Unit P) of Section 34, Township 19 South, Range 36 East, to be dedicated to a non-standard 160-acre gas proration unit comprising the S/2 S/2 of said Section 34. Said area is approximately I mile northwest of the Warren Gas Co. Compressor Station.

CASE 10817: **Application of Meridian Oil Inc. for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the top of the Wolfcamp formation to the base of the Morrow formation underlying the S/2 of Section 35, Township 17 South, Range 30 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, which presently includes but is not necessarily limited to the Cedar Lake-Morrow Gas Pool. Said unit is to be dedicated to its Loco Hills "35" Federal Well No. 1 to be drilled and completed at a standard location within Unit J (NW/4 SE/4) of said Section 35. Also to be considered will be the cost of drilling and completing said well and the allocation of the costs thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said unit is located approximately 3 miles southeast of Loco Hills, New Mexico.

CASE 10818: **Application of Petroleum Development Company for a short-radius horizontal directional drilling project area and special operating rules therefor, Chaves County, New Mexico.** Applicant seeks authority to institute a short-radius horizontal directional drilling project in the Tomahawk-San Andres Pool on its Strange Federal Lease comprising the S/2 of Section 25, Township 7 South, Range 31 East. Initially the applicant proposes to utilize three existing wells on said lease, the No. 1, 2, and 3 wells located in Units "P", "O", and "J", respectively, of said Section 25 by kicking-off from vertical, build angle to approximately 90 degrees with a short-radius curve and continue drilling a horizontal drainhole in said pool. Applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of any drainhole in said project area to within 100 feet of the boundary circumventing the S/2 of said Section 25. Further, the applicant seeks the promulgation of special operating rules and procedures for said project area including provisions for administrative authorization of any further drainholes, the formation of oversized and irregular shaped spacing and proration units to accommodate such wellbores, and the assignment of a special oil allowable to units with horizontal wellbores or to assign a special project allowable for the area should it be deemed necessary. The center of said project area is located approximately 12 miles south by east of Kenna, New Mexico.

CASE 10819: **Application of Petroleum Development Company for a short-radius horizontal directional drilling project area and special operating rules therefor, Roosevelt County, New Mexico.** Applicant seeks authority to institute a short-radius horizontal directional drilling project in the Tomahawk-San Andres Pool on its Mountain Federal Lease comprising the NE/4 and E/2 NW/4 of Section 30, Township 7 South, Range 32 East. Initially the applicant proposes to utilize the existing Mountain Federal Well Nos. 4 and 5 located in Units "B" and "C", respectively, of said Section 30 by kicking-off from vertical, build angle to approximately 90 degrees with a short-radius curve and continue drilling a horizontal drainhole in said pool. Applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of any drainhole in said project area to within 100 feet of the boundary circumventing said project area as described above. Further, the applicant seeks the promulgation of special operating rules and procedures for said project area including provisions for administrative authorization of any further drainholes, the formation of oversized and irregular shaped spacing and proration units to accommodate such wellbores, and the assignment of a special oil allowable to units with horizontal wellbores or to assign a special project allowable for the area should it be deemed necessary. The center of said project area is located approximately 11.5 miles south-southeast of Kenna, New Mexico.

CASE 10820: **Application of Petroleum Development Company for a high angle/horizontal directional drilling pilot project and for special operating rules therefor, Chaves County, New Mexico.** Applicant seeks authority to initiate a short-radius high angle/horizontal directional drilling pilot project in the NW/4 NE/4 of Section 6, Township 8 South, Range 31 East, being a standard 40-acre oil spacing and proration unit in the Cato-San Andres Pool. The applicant proposes to utilize the previously plugged and abandoned Exxon Corporation Wattam Federal Well No. 1 located 660 feet from the North line and 1980 feet from the East line (Unit B) of said Section 6 by kick-off from vertical, build angle to approximately 90 degrees with a short radius curve and continue with a horizontal drainhole in said pool. Applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of the well's producing interval within 100 feet to the outer boundary of said 40-acre unit. Said project area is located approximately 13.5 miles south by west of Kenna, New Mexico.

CASE 10821: **Application of Petroleum Development Company for a short-radius horizontal directional drilling project area and special operating rules therefor, Chaves County, New Mexico.** Applicant seeks authority to institute a short-radius horizontal directional drilling project in the Tom Tom-San Andres Pool on a portion of its Wattam Federal Lease comprising Lots 2, 3, and 4, the E/2, SE/4 NW/4, and E/2 SW/4 of Section 7 and the S/2 NW/4 and SW/4 of Section 8, Township 8 South, Range 31 East. Initially the applicant proposes to utilize the existing Wattam Federal Well Nos. 2 and 6 located in Units "L" and "A", respectively, of said Section 7 by kicking-off from vertical, build angle to approximately 90 degrees with a short-radius curve and continue drilling a horizontal drainhole in said pool. Applicant further seeks special rules and provisions within the project area including the designation of a prescribed area limiting the horizontal displacement of any drainhole in said project area to within 100 feet of the boundary circumventing said project area as described above. Further, the applicant seeks the promulgation of special operating rules and procedures for said project area including provisions for administrative authorization of any further drainholes, the formation of oversized and irregular shaped spacing and proration units to accommodate such wellbores, and the assignment of a special oil allowable to units with horizontal wellbores or to assign a special project allowable for the area should it be deemed necessary. The center of said project area is located approximately 13 miles south by west of Kenna, New Mexico.

CASE 10687: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 500 feet below the top of the San Andres formation to the base of the Morrow formation underlying the following described areas in Section 17, Township 18 South, Range 28 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; and the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Illinois Camp "17" State Well No. 2, to be drilled at a standard location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles north of Illinois Camp.

CASE 10688: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the base of the Abo formation to the base of the Morrow formation underlying the following described areas in Section 31, Township 17 South, Range 28 East, and in the following manner: the S/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and the SW/4 SE/4 forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. Said unit is to be dedicated to its Chalk Bluff "31" State Well No. 1, to be drilled at a standard location within said S/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 1 mile southwest of the Baylor Triangulation Station.

CASE 10822: **Application of Cross Timbers Operating Company for a waterflood project, Lea County, New Mexico.** Applicant seeks authority to convert its State "BY" Well No. 6, located 2310 feet from the South line and 430 feet from the East line (Unit I) of Section 32, Township 17 South, Range 33 East, and utilize said well for secondary recovery purposes for the applicant's State "BY" Lease by injecting produced and fresh water into the Grayburg formation through the perforated interval from approximately 4602 to 4708 feet. The applicant requests that the Division establish procedures for the administrative approval of additional injection wells on said lease without the necessity of further hearings, and the adoption of any other provisions necessary for such other matters as may be appropriate for said waterflood operations. Said well is located approximately 4 miles west-southwest of Buckeye, New Mexico.

CASE 10823: **Application of Nearburg Producing Company for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation, underlying the W/2 of Section 10, Township 22 South, Range 24 East, forming a standard 320-acre oil and gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, including the Undesignated Indian Basin-Upper Pennsylvanian Associated Pool. Said unit is to be dedicated to a well to be drilled at an orthodox location within said W/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well, and a charge for risk involved in drilling said well. Said unit is located approximately 12 miles west of Carlsbad, New Mexico.

CASE 10775: **(Continued from July 29, 1993, examiner Hearing.)**

Application of Santa Fe Energy Operating Partners. L.P. for an unorthodox infill gas well location and simultaneous dedication, Eddy County, New Mexico. Applicant seeks approval of an unorthodox well location 1980 feet from the South line and 660 feet from the East line (Unit I) of Section 1, Township 24 South, Range 28 East, Malaga-Atoka Gas Pool. Further, the applicant seeks an exception to Division General Rule 104.c(2) to allow the existing 320-acre gas spacing and proration unit comprising the S/2 of said Section 1 to be simultaneously dedicated in the Malaga-Atoka Gas Pool to the proposed well and to the existing Malaga Federal 1 Well No. 1 located at a standard gas well location 660 feet from the South line and 1980 feet from the West line (Unit N) of said Section 1. Said unit is located approximately 2 miles northeast of Malaga, New Mexico.

CASE 10824: **Application of Santa Fe Energy Operating Partners, L.P. for an unorthodox gas well location, Eddy County, New Mexico.** Applicant seeks approval to drill its Salt Draw 33 Fed. Well No. 1 at an unorthodox gas well location 660 feet from the North line and 1980 feet from the East line (Unit B) of Section 33, Township 24 South, Range 28 East, to test the Atoka formation. The E/2 of said Section 33 will be dedicated to the well. Said well is located approximately 3 miles south of Malaga, New Mexico.

CASE 10513: **(Continued from August 26, 1993, Examiner Hearing.)**

Application of Hanley Petroleum Inc. for determination of reasonable well costs, Lea County, New Mexico. Applicant, in the above-styled cause, as a working interest owner in the Santa Fe Energy Operating Partners, L.P. Kachina "8" Federal Well No. 2 located 1830 feet from the North line and 660 feet from the West line (Unit E) of Section 8, Township 18 South, Range 33 East, South Corbin-Wolfcamp Pool, which was drilled pursuant to the compulsory pooling provisions of Division Order Nos. R-9480, R-9480-A, and R-9480-B, all entered in Case Nos. 10211 and 10219, and to which is dedicated the W/2 NW/4 (Units D and E) of said Section 8, seeks an order ascertaining the reasonableness of actual well costs for the subject well. Said unit is located approximately 7.5 miles southeast by south of Maljamar, New Mexico.

CASE 10825: In the matter of the hearing called by the Oil Conservation Division on its own motion for an order creating and extending certain pools in Chaves and Eddy Counties, New Mexco.

(a) CREATE a new pool in Eddy County, New Mexico, classified as a gas pool for Strawn production and designated as the Northeast Avalon-Strawn Gas Pool. The discovery well is the Bravo Operating Co. Mesa Macho Well No. 1 located in Unit O of Section 24, Township 20 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 20 SOUTH, RANGE 27 EAST, NMPM
Section 24: E/2

(b) CREATE a new pool in Eddy County, New Mexico, classified as an oil pool for Delaware production and designated as the East Dark Canyon-Delaware Pool. The discovery well is the Dakota Resources Drag C Well No. 2 located in Unit O of Section 19, Township 23 South, Range 27 East, NMPM. Said pool would comprise:

TOWNSHIP 23 SOUTH, RANGE 27 EAST, NMPM
Section 19: SE/4

(c) EXTEND the Southeast Acme-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 8 SOUTH, RANGE 27 EAST, NMPM
Section 13: E/2 NW/4 and NW/4 NW/4

(d) EXTEND the South Carlsbad-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM
Section 33: S/2

(e) EXTEND the Cedar Lake-Strawn Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 18 SOUTH, RANGE 30 EAST, NMPM
Section 2: SE/4

(f) EXTEND the East Chisum-San Andres Pool in Chaves County, New Mexico, to include therein:

TOWNSHIP 11 SOUTH, RANGE 28 EAST, NMPM
Section 15: SW/4

(g) EXTEND the South Culebra Bluff-Bone Spring Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 28 EAST, NMPM
Section 34: S/2

(h) EXTEND the Empire Yates-Seven Rivers Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 17 SOUTH, RANGE 27 EAST, NMPM
Section 34: SE/4

(i) EXTEND the Frontier Hills-Strawn Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 26 EAST, NMPM
Section 22: S/2

(j) EXTEND the Happy Valley-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 22 SOUTH, RANGE 26 EAST, NMPM
Section 33: NW/4 NW/4 and S/2 NW/4

(k) EXTEND the Indian Basin-Morrow Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM
Section 15: S/2
Section 22: All

(l) EXTEND the Indian Basin-Upper Pennsylvanian Associated Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 21 SOUTH, RANGE 24 EAST, NMPM
Section 27: S/2
Section 24: All

TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM
Sections 3, 9, 10, 16: All
Section 17: E/2

(m) EXTEND the Ingle Wells-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 24: SW/4
Section 25: W/2

(n) EXTEND the Los Medanos-Delaware Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 17: SW/4

(o) EXTEND the East Loving-Brushy Canyon Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 23 SOUTH, RANGE 28 EAST, NMPM
Section 9: NE/4

(p) EXTEND the East Millman Queen-Grayburg-San Andres Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 29 EAST, NMPM
Section 6: NW/4

(q) EXTEND the Penasco Draw-Permo Pennsylvanian Gas Pool in Eddy County, New Mexico, to include therein:

TOWNSHIP 19 SOUTH, RANGE 24 EAST, NMPM
Section 11: E/2
Section 14: N/2

(r) EXTEND the West Sand Dunes-Delaware Pool in Eddy County, New Mexico, to include therein:

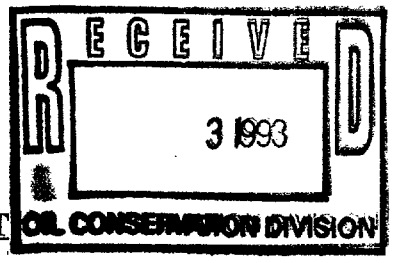
TOWNSHIP 23 SOUTH, RANGE 31 EAST, NMPM
Section 33: NE/4

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10772

APPLICATION OF BARBER OIL INC. FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.



PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Campbell, Carr, Berge & Sheridan, P.A., as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT	ATTORNEY
Barber Oil Inc. c/o Bob Light Post Office Box 1658 Carlsbad, New Mexico 88221-1658	William F. Carr, Esq. Campbell, Carr, Berge & Sheridan, P.A. Post Office Box 2208 Santa Fe, New Mexico 87504
(505) 887-2566 name, address, phone and contact person	(505) 988-4421
OPPOSITION OR OTHER PARTY	ATTORNEY
_____ _____ _____ _____	_____ _____ _____ _____
_____ name, address, phone and contact person	_____

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

Barber Oil Inc., applicant in the above-captioned cause, seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet.

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
Mike Garringer,	15 Min.	Approximately 2

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to hearing)

Signature

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

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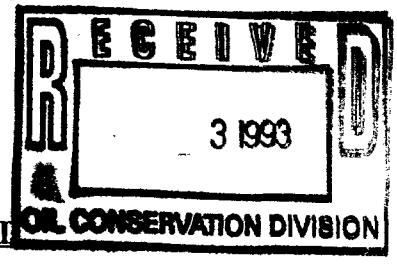

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STATEMENT OF CASE

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(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

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WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
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OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to hearing)

Signature

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

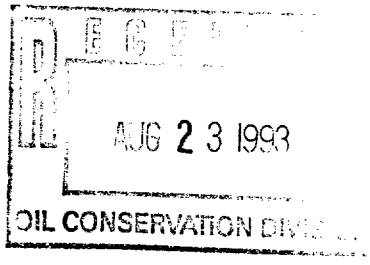
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT
DAVID B. LAWRENZ
TANYA M. TRUJILLO

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE I - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 23, 1993



HAND-DELIVERED

William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: **Oil Conservation Division Case No. 10772:**
Application of Barber Oil Inc., for Salt Water Disposal, Eddy County, New Mexico

Dear Mr. LeMay:

Barber Oil Inc. respectfully requests that this matter which is currently set on the Division docket for the August 26, 1993 hearings be continued to the September 9, 1993 Examiner docket.

Your attention to this matter is appreciated.

Very truly yours,

WILLIAM F. CARR

WFC:djp
cc: Mr. Mike Garringer
Barber Oil Inc.
Post Office Box 1658
Carlsbad, New Mexico 88221-1658

W. Thomas Kellahin, Esq.

DOCKET: EXAMINER HEARING - THURSDAY - AUGUST 26, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 26-93 and 27-93 are tentatively set for September 9, 1993 and September 23, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before Michael E. Stogner, Examiner or David R. Catanach, Alternate Examiner:

CASE 10687: **(Continued from August 12, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 500 feet below the top of the San Andres formation to the base of the Morrow formation underlying the following described areas in Section 17, Township 18 South, Range 28 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; and the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Illinois Camp "17" State Well No. 2, to be drilled at a standard location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles north of Illinois Camp.

CASE 10688: **(Continued from July 15, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the base of the Abo formation to the base of the Morrow formation underlying the following described areas in Section 31, Township 17 South, Range 28 East, and in the following manner: the S/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and the SW/4 SE/4 forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. Said unit is to be dedicated to its Chalk Bluff "31" State Well No. 1, to be drilled at a standard location within said S/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 1 mile southwest of the Baylor Triangulation Station.

CASE 10760: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Breck Operating Corporation for compulsory pooling, San Juan County, New Mexico. Applicant seeks an order pooling all mineral interests in the Basin-Fruitland Coal Gas Pool underlying the W/2 of Section 20, Township 28 North, Range 10 West, forming a standard 320-acre gas spacing and proration unit for said pool developed within said vertical extent. Said unit is to be dedicated to its Kutz-Government Well No. 9, recompleted at an approved unorthodox location within said W/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said well is located approximately 5 miles southeast of Bloomfield, New Mexico.

CASE 10800: **Application of Merrion Oil & Gas Corporation for compulsory pooling, San Juan County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Basin-Fruitland Coal (Gas) formation, underlying the E/2 of Section 26, Township 26 North, Range 13 West, forming a standard 320-acre coal gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, including the Basin-Fruitland Coal Gas Pool. Said unit is to be dedicated to its Serendipity Well No. 1 to be recompleted at a standard coal gas well location 1650 feet from the South line and 2310 feet from the East line of said Section 26. Also to be considered will be the cost of recompleting said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in recompleting said well. Said well is located approximately 3 miles southeast of the Chaco Gas Plant.

CASE 10801: **Application of Merrion Oil & Gas Corporation for compulsory pooling, San Juan County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Fruitland Sand formation, underlying the SW/4 of Section 22, Township 30 North, Range 12 West, forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Osborn Well No. 1 to be recompleted at a standard gas well location 790 feet from the South line and 900 feet from the West line of said Section 22. Also to be considered will be the cost of recompleting said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in recompleting said well. Said well is located near Flora Vista, New Mexico.

CASE 10802: **Application of Phillips Petroleum Company for an unorthodox oil well location, Eddy County, New Mexico.** Applicant seeks approval of an unorthodox subsurface oil well location for its James "E" Federal Well No. 8 which was directionally drilled to an unorthodox subsurface location being a point at the top of the Cherry Canyon Formation 1970 feet from the South line and 1030 feet from the East line (Unit I) of Section 11, Township 22 South, Range 30 East, Cabin Lake-Delaware Pool. The NE/4 SE/4 of said Section 11 is to be dedicated to said well forming a standard 40-acre oil spacing unit. Said unit is located approximately 22 miles east of Carlsbad, New Mexico.

CASES 10745 and 10754: **(Reopened)**

Application of Meridian Oil Inc. to amend Division Order No. R-9920 and to reopen Cases 10754 and 10745, San Juan and Rio Arriba Counties, New Mexico. Applicant seeks to amend Division Order No. R-9920, dated July 9, 1993, entered in Cases 10721, 10722, 10723, 10724, and 10725 and to Reopen Cases 10745 and 10754 in order to present additional evidence. Specifically, applicant seeks to amend those provisions of Order No. R-9920 which established an economic limit for downhole commingling of production in certain wells in the Pictured Cliffs formation and the Basin-Fruitland Coal Gas Pool and to have said amendments applied to orders to be issued in Cases 10745 and 10754. These cases involve a total of seven wells located and described in Division Examiner dockets of April 22, 1993 and July 1, 1993.

CASE 10803: **Application of Texaco Exploration and Production, Inc. for an unorthodox gas well location, Eddy County, New Mexico.** Applicant seeks approval to drill its Dow "B" 33 Federal Well No. 2 as a gas well at an unorthodox location 660 feet from the North line and 2310 feet from the West line (Unit C) of Section 33, Township 17 South, Range 31 East, to test the Morrow formation. The W/2 of said Section 33 is to be dedicated to the well. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Morrow formation. Said well is located approximately 4 1/2 miles south of Maljamar, New Mexico.

CASE 10804: **Application of Collins & Ware, Inc. for special pool rules, Eddy County, New Mexico.** Applicant seeks the promulgation of special pool rules for the Happy Valley-Delaware Pool, located in the NE/4 NW/4 of Section 33, Township 22 South, Range 26 East, including a provision for a gas-oil ratio limitation of 10,000 cubic feet of gas per barrel of oil and a special oil allowable of 160 barrels per day. Said area is located approximately 5 miles southwest of Carlsbad, New Mexico.

CASE 10805: **Application of Collins & Ware, Inc. for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico.** Applicant seeks approval of an unorthodox gas well location 710 feet from the South and East lines (Unit P) of Section 25, Township 23 South, Range 28 East, South Culebra Bluff-Atoka Gas Pool. In addition, the applicant seeks an exception to Division General Rule 104(c)(2) to allow the existing [illegible]-acre gas spacing and proration unit comprising the S/2 of said Section 25 to be simultaneously dedicated in this pool to the proposed well and to the existing Ray "25" Well No. 1 located at a standard gas well location 897 feet from the South line and 1980 feet from the West line (Unit N) of said Section 25. Said unit is located approximately 3.5 miles east by southeast of Loving, New Mexico.

CASE 10791: **(Continued from August 12, 1993, Examiner Hearing.)**

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant seeks approval to drill its Beauregard ANP State Com Well No. I to the Morrow formation, Illinois Camp-Morrow Gas Pool, at an unorthodox gas well location 660 feet from the North line and 1980 feet from the East line (Unit B) of Section 14, Township 18 South, Range 27 East. The E/2 of said Section 14 is to be dedicated to the well. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Morrow spaced on 320 acres. Said well is located approximately 4 miles northeast of Illinois Camp.

CASE 10806: **Application of Kinlaw Oil Corporation for a high angle/horizontal directional drilling pilot project, special operating rules therefor, a non-standard oil proration unit, an unorthodox well location, and a special project oil allowable, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the NE/4 SE/4 of Section 35 and the NW/4 SW/4 of Section 36, Township 15 South, Range 37 East, thereby creating a non-standard 80-acre oil spacing and proration unit for said pool. Applicant proposes to re-enter its Magnolia Petroleum New Mexico "M" Well No. 1 which is at an orthodox location 1980 feet from the South line and 660 feet from the West line (Unit L) of said Section 36, kick-off from vertical in a southwesterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 9 miles east by northeast of Lovington, New Mexico.

CASE 10807: **Application of Kinlaw Oil Corporation for a high angle/horizontal directional drilling pilot project, special operating rules therefor, a non-standard oil proration unit, an unorthodox well location, and a special project oil allowable, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool underlying the SE/4 SE/4 of Section 35 and the SW/4 SW/4 of Section 36, Township 15 South, Range 37 East, thereby creating a non-standard 80-acre oil spacing and proration unit for said pool. Applicant proposes to re-enter its Shell Oil Company State "SDA" Well No. 1 which is at an orthodox location 660 feet from the South and West lines (Unit M) of said Section 36, kick-off from vertical in a northwesterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 9 miles east by northeast of Lovington, New Mexico.

CASE 10808: **Application of Kinlaw Oil Corporation for a high angle/horizontal directional drilling pilot project and special operating rules therefor, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the SE/4 SW/4 of Section 36, Township 15 South, Range 37 East. Applicant proposes to re-enter its Shell Oil Company State "SDA" Well No. 2 which is at an orthodox location 660 feet from the South line and 1650 feet from the West line (Unit N) of said Section 36, kick-off from vertical in a southwesterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 10 miles east by northeast of Lovington, New Mexico.

CASE 10809: **Application of Kinlaw Oil Corporation for a high angle/horizontal directional drilling pilot project, special operating rules therefor, a non-standard oil proration unit, an unorthodox well location, and a special project oil allowable, Lea County, New Mexico.** Applicant seeks to initiate a horizontal drilling project in the Devonian formation, Denton-Devonian Pool, underlying the E/2 NE/4 of Section 5, Township 16 South, Range 38 East, thereby creating a non-standard 80-acre oil spacing and proration unit for said pool. Applicant proposes to re-enter its V.F. Petroleum Huber State Well No. 1 which is at an unorthodox surface location 330 feet from the North line and 1150 feet from the East line (Unit A) of said Section 5, kick-off from vertical in a southeasterly direction commencing to build angle at an appropriate rate to vertically and horizontally traverse the proposed producing area. Applicant further seeks the adoption of special operating provisions and rules within the project area including the designation of a target window such that the horizontal or producing portion of the wellbore shall be no closer than 330 feet to any boundary of the proration unit, and for a special project allowable. Said project is located approximately 2 miles east of Hobbs Army Airfield Aux. #1.

CASE 10717: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Davcro Inc. for salt water disposal, Lea County, New Mexico. Applicant seeks authority to re-enter the previously plugged and abandoned Cactus Drilling Corporation Sawyer Deep Well No. 1 located 330 feet from the South line and 2310 feet from the West line (Unit N) of Section 19, Township 9 South, Range 38 East,and utilize said well to dispose of produced salt water into the Sawyer-San Andres Associated Pool through the open-hole interval from approximately 5120 feet to 5600 feet. Said well is located approximately 4.5 miles east of Crossroads, New Mexico.

CASE 10749: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Devon Energy Corporation for pool creation and special pool rules, Eddy County, New Mexico. Applicant seeks the promulgation of special rules for the Ingle Wells-Delaware Pool located in portions of Sections 26 and 35 of Township 23 South, Range 31 East and in a portion of Section 2, Township 24 South, Range 31 East, including a provision for a gas-oil limitation of 5000 cubic feet of gas per barrel of oil. Said area is located approximately 2 miles west of mile marker 19 on highway 128.

CASE 10810: **Application of Marbob Energy Corporation for statutory unitization, Eddy County, New Mexico.** Applicant seeks an order unitizing, for the purpose of establishing a secondary recovery project, all mineral interests in the Grayburg-Jackson Pool, Seven Rivers, Queen, Grayburg and San Andres formations, underlying 5149.44 acres, more or less, of federal land comprising portions of Township 17 South, Ranges 29 and 30 East, to be designated the Burch-Keely Unit Area. To be considered will be those matters required by the New Mexico Statutory Unitization Act, Subsection 70-7-1 et seq., N.M.S.A. 1978, and other provisions of the unit agreement and unit operating agreement. Said unit area is located near Loco Hills, New Mexico.

CASE 10513: **(Continued from July 15, 1993, Examiner Hearing.)**

Application of Hanley Petroleum Inc. for determination of reasonable well costs, Lea County, New Mexico. Applicant, in the above-styled cause, as a working interest owner in the Santa Fe Energy Operating Partners, L.P. Kachina "8" Federal Well No. 2 located 1830 feet from the North line and 660 feet from the West line (Unit E) of Section 8, Township 18 South, Range 33 East, South Corbin-Wolfcamp Pool, which was drilled pursuant to the compulsory pooling provisions of Division Order Nos. R-9480, R-9480-A, and R-9480-B, all entered in Case Nos. 10211 and 10219, and to which is dedicated the W/2 NW/4 (Units D and E) of said Section 8, seeks an order ascertaining the reasonableness of actual well costs for the subject well. Said unit is located approximately 7.5 miles southeast by south of Maljamar, New Mexico.

CASE 10772: **(Continued from August 12, 1993, Examiner Hearing.)**

Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10766: **(Continued from August 12, 1993, Examiner Hearing.)**

Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and non-standard gas spacing unit, Lea County, New Mexico. Applicant seeks authorization to drill a well at an unorthodox location 1980 feet from the North line and 1650 feet from the West line (Unit F) of Section 11, Township 21 South, Range 36 East, Eumont Gas Pool. Applicant also seeks authority to dedicate a non-standard spacing unit comprised of the SE/4 NW/4, S/2 NE/4 and the NW/4 SE/4 of said Section 11 to said well. Said unit is located approximately 1 mile east of Oil Center, New Mexico.

CASE 10795: **(Continued from August 12, 1993, Examiner Hearing.)**

Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and a non-standard spacing unit, Lea County, New Mexico. Applicant seeks authorization to drill its Foster Well No. 3 in the Eumont Gas Pool at an unorthodox gas well location 330 feet from the South and East lines (Unit P) of Section 34, Township 19 South, Range 36 East, to be dedicated to a non-standard 160-acre gas proration unit comprising the S/2 S/2 of said Section 34. Said area is approximately I mile northwest of the Warren Gas Co. Compressor Station.

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

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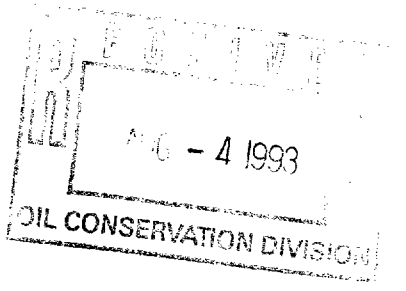
OF COUNSEL

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 4, 1993

HAND-DELIVERED



William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 10772:
Application of Barber Oil Inc., for Salt Water Disposal, Eddy County, New Mexico

Dear Mr. LeMay:

Barber Oil Inc., respectfully requests that this matter which is currently set on the Division docket for the August 12, 1993 hearings be continued to the August 26, 1993 Examiner docket.

Your attention to this matter is appreciated.

Very truly yours,

WILLIAM F. CARR

WFC:mlh
cc: Mr. Mike Garringer
Barber Oil Inc.,
Post Office Box 1658
Carlsbad, New Mexico 88221-1658

DOCKET: EXAMINER HEARING - THURSDAY - AUGUST 12, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 25-93 and 26-93 are tentatively set for August 26, 1993 and September 9, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before David R. Catanach, Examiner or Michael E. Stogner, Alternate Examiner:

CASE 10785: **Application of Merrion Oil & Gas Corporation for a unit agreement, Sandoval County, New Mexico.** Applicant seeks approval of the Hagan Unit Agreement for an area comprising 16,621.58 acres of Federal, State and Fee lands in portions of Townships 13 and 14 North, Range 6 East, which is centered approximately 10 miles east of Algodones, New Mexico.

CASE 10786: **Application of Merrion Oil & Gas Corporation for a unit agreement, Sandoval County, New Mexico.** Applicant seeks approval of the Blackshare Unit Agreement for an area comprising 5,917.78 acres, more or less, of Federal, State and Fee lands in portions of Townships 13 and 14 North, Range 6 East, which is centered approximately 7 miles west by south of Madrid, New Mexico.

CASE 10787: **Application of Merrion Oil & Gas Company for an unorthodox oil well location, McKinley County, New Mexico.** Applicant seeks approval of an unorthodox oil well location in the Ojo Encino Entrada Oil Pool for its proposed High Hopes Well No. I to be drilled 1220 feet from the North line and 1300 feet from the East line (Unit A) of Section 28, Township 20 North, Range 5 West. Said unit is located approximately I mile southwest of Ojo Encino Trailer School.

CASE 10788: **Application of Nearburg Producing Company for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation, underlying the E/2 of Section 2, Township 22 South, Range 24 East, forming a standard 320-acre oil spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent, including the undesignated South Indian Basin-Upper Pennsylvanian Pool created in Division Case No. 10748. Said unit is to be dedicated to a well to be drilled at an orthodox location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling said well. Said well is located near Little Walt Spring.

CASE 10789: **Application of Bright & Company for approval of a second well in a high angle/horizontal directional drilling pilot project, an unorthodox surface oil well location, and special operating rules therefor, Sandoval County, New Mexico.** Applicant seeks to drill a second high angle/horizontal well in the Rio Puerco-Mancos Oil Pool within its high angle/horizontal directional drilling pilot project previously approved by Division Order No. R-9676 by commencing its Cuba Mesa Unit 35 Well No. 2 at an unorthodox surface location 1010 feet from the South line and 820 feet from the West line (Unit M) of Section 35, Township 21 North, Range 2 West, drill vertically to a depth of approximately 3539 feet, kick-off in a north-northwesterly direction, build angle up to approximately 87.25 degrees, drill horizontally for approximately 3613 feet, and bottom said wellbore at a location approximately 660 feet from the North line and 660 feet from the West line of said Section 35. Said well is to be dedicated to the W/2 of said Section 35 forming a standard 320-acre oil spacing and proration unit for said pool. Applicant requests a special oil allowable of 19,200 barrels for the 60-day period commencing the day the well is spudded, and an additional allowable of 320 barrels of oil per day for the well after completion. Applicant proposes to keep the horizontal displacement of said well's producing interval within the allowed 660 foot setback from the outer boundary of the assigned spacing unit. Said unit is located approximately 3.5 miles west by south of Cuba, New Mexico.

CASE 10687: **(Continued from July 15, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 500 feet below the top of the San Andres formation to the base of the Morrow formation underlying the following described areas in Section 17, Township 18 South, Range 28 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; and the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Illinois Camp "17" State Well No. 2, to be drilled at a standard location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles north of Illinois Camp.

CASE 10767: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Santa Fe Energy Operating Partners, L.P. for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation underlying all of Section 5, Township 22 South, Range 24 East, forming a standard 640-acre gas spacing and proration unit for any and all formations and/or pools developed on 640-acre spacing within said vertical extent. Said unit is to be dedicated to its reentry of the Discovery Operating Walt Canyon 5 Fed Well No. 1 at a standard location in said Section 5. Also to be considered will be the cost of reentering and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in reentering and completing said well. Said well is located approximately 2 miles south of the Tepee.

CASE 10790: **Application of Yates Petroleum Corporation for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface through the Morrow formation, underlying the S/2 of Section 2, Township 22 South, Range 24 East, forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent. Said unit is to be dedicated to its Androcles "AND" State Com Well No. I located 1980 feet from the South and East lines of said Section 2. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling and completing said well. Said well is located just east of Little Walt Spring.

CASE 10763: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant seeks approval of the Sanmal Queen Unit Agreement for an area comprising 440 acres, more or less, of State land in Sections 1 and 12, Township 17 South, Range 33 East, which is centered approximately 3 miles north of Buckeye, New Mexico.

CASE 10764: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant seeks approval of the Saffron Unit Agreement for an area comprising 1,396.01 acres, more or less, of Federal and State lands in Sections 1, 2 and 3 of Township 23 South, Range 32 East, which is located approximately 24 miles west of Eunice, New Mexico.

CASE 10791: **(This case will be continued to August 26, 1993, Examiner Hearing.)**

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant seeks approval to drill its Beauregard ANP State Com Well No. I to the Morrow formation, Illinois Camp-Morrow Gas Pool, at an unorthodox gas well location 660 feet from the North line and 1980 feet from the East line (Unit B) of Section 14, Township 18 South, Range 27 East. The E/2 of said Section 14 is to be dedicated to the well. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Morrow spaced on 320 acres. Said well is located approximately 4 miles northeast of Illinois Camp.

CASE 10792: **Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico.** Applicant seeks approval to drill its Yerba AMY Fed Com Well No. I at an unorthodox gas well location 1650 feet from the North line and 1580 feet from the West line (Unit F) of Section 14, Township 21 South, Range 24 East. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Wolfcamp, Cisco, Canyon, Strawn, Atoka and Morrow formations. Said well is located approximately 12 miles west by Northwest of Carlsbad, New Mexico.

CASE 10793: **Application of Yates Petroleum Corporation for a pilot gas enhanced recovery project, Chaves County, New Mexico.** Applicant seeks authority to implement a pilot project within portions of the Pecos Slope Abo-Gas Pool in which it may drill an additional well on certain 160-acre spacing units to determine if additional development is necessary to effectively and efficiently drain the Abo formation. The pilot project area shall be limited to the following tracts:

TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM

Section 1:NW/4
Section 8:NE/4
Section 11:E/2
Section 15:SW/4
Section 24:SW/4
Section 26:NE/4
Section 35:NE/4

Said area is located approximately 12 miles west of Haystack Butte.

CASE 10794: **Application of Yates Petroleum Corporation for approval of a waterflood project, Lea County, New Mexico.** Applicant seeks approval of its Sanmal Unit Waterflood Project by injection of water into the Queen formation through three (3) injection wells located in the following described area:

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM

Section 1: SW/4, S/2 NE/4, N/2 SE/4, SW/4 SE/4
Section 12: N/2 NW/4

The applicant requests that the Division establish procedures for the administrative approval of additional injection wells within the unit area without the necessity of further hearings and the adoption of any provisions necessary for such other matters as may be appropriate for said waterflood operations. Applicant further seeks to quality this project for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Said area of interest is located 3 miles north of Buckeye, New Mexico.

CASE 10772: **(Continued from July 15, 1993, Examiner Hearing.)**

Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10766: **(Continued from July 15, 1993, Examiner Hearing.)**

Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and non-standard gas spacing unit, Lea County, New Mexico. Applicant seeks authorization to drill a well at an unorthodox location 1980 feet from the North line and 1650 feet from the West line (Unit F) of Section 11, Township 21 South, Range 36 East, Eumont Gas Pool. Applicant also seeks authority to dedicate a non-standard spacing unit comprised of the SE/4 NW/4, S/2 NE/4 and the NW/4 SE/4 of said Section 11 to said well. Said unit is located approximately 1 mile east of Oil Center, New Mexico.

CASE 10795: **Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and a non-standard spacing unit, Lea County, New Mexico.** Applicant seeks authorization to drill its Foster Well No. 3 in the Eumont Gas Pool at an unorthodox gas well location 330 feet from the South and East lines (Unit P) of Section 34, Township 19 South, Range 36 East, to be dedicated to a non-standard 160-acre gas proration unit comprising the S/2 S/2 of said Section 34. Said area is approximately 1 mile northwest of the Warren Gas Co. Compressor Station.

CASE 10796: **Application of Manzano Oil Corporation for an unorthodox gas well location, Lea County, New Mexico.** Applicant seeks approval of an unorthodox location in the Wolfcamp formation, Osudo-Wolfcamp Pool, for its Neuhaus Federal Well No. 2 which has been drilled 660 feet from the North line and 1650 feet from the East line (Unit B) of Section 14, Township 20 South, Range 35 East. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Wolfcamp, spaced on 320 acres. Said well is located approximately 17 miles southwest of Hobbs, New Mexico.

CASE 10797: **Application of Collins and Ware, Inc. for an unorthodox gas well location, Lea County, New Mexico.** Applicant seeks approval to drill its Kaiser State Well No. 43 at an unorthodox ga.s well location 1000 feet from the South line and 400 feet from the West line (Unit M) of Section 13, Township 21 South, Range 34 East. The SW/4 of said Section 13 is to be dedicated to the well. Applicant further requests approval of the unorthodox location as to all prospective pools or formations including but not limited to the Wilson Yates-Seven Rivers Associated Pool, Yates-Seven Rivers formation which are spaced on 160 acres. Said well is located approximately 9 miles west of the Intersection of State Highway 8 and 176.

CASE 10777: **(Continued from July 29, 1993, Examiner Hearing.)**

Application of Texaco Exploration and Production, Inc. for special pool rules, Lea County, New Mexico. Applicant seeks the promulgation of special rules and regulations for the North Teague-Ellenburger Pool including a provision for a special depth bracket allowable of 700 barrels of oil per day. Said pool is located in Township 23 South, Range 37 East, located 1 1/2 miles northeast of the United Carbon Co. Harkness Plant.

CASE 10798: **Application of Texaco Exploration and Production, Inc. to authorize the expansion of a portion of its Cooper Jal Unit Waterflood Project, and qualify said expansion for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act", Jalmat and Langlie-Mattix Pools, Lea County, New Mexico.** Applicant seeks an order pursuant to the rules and procedures for Qualification of Enhanced Oil Recovery Project and Certification for the Recovery Oil Tax Rate, as promulgated by Division Order No. R-9708, qualifying a portion of its Cooper Jal Unit Waterflood Project for the Recovered Oil Tax Rate under the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections I through 5). The portion of the Cooper Jal Unit to be included in the project area is as follows:

TOWNSHIP 24 SOUTH, RANGE 36 EAST, NMPM

Section 13: S/2
Section 18: SW/4 SW/4
Section 23: S/2 SE/4
Section 24: All
Section 25: N/2
Section 26: NE/4 NE/4

TOWNSHIP 24 SOUTH, RANGE 37 EAST, NMPM

Section 19: W/2
Section 30: NW/4

comprising 1920 acres, more or less. Applicant further seeks authority to expand a portion of said project by means of a significant change in process including conversion to 40-acre five spot injection patterns. Said project is located approximately 5 miles north of Jal, New Mexico.

Docket No. 22-93

DOCKET: COMMISSION HEARING - THURSDAY - AUGUST 19, 1993
9:00 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
The Land Commissioner's designee for this hearing will be Jami Bailey

CASE 10799: The Oil Conservation Division is calling a hearing on its own motion to accept nominations and other evidence and information to assist in determining October 1993 through March 1994 gas allowables for the prorated gas pools in New Mexico. Thirteen of the prorated gas pools are in Lea, Eddy and Chaves Counties in Southeast New Mexico and four pools are in San Juan, Rio Arriba, and Sandoval Counties in Northwest New Mexico. Amendments to the Gas Proration Rules approved by Commission Order No. R-8170-H in December 1990 provide for allowables to be established for 6-month allocation periods beginning in April and October of each year. Information concerning preliminary allowable estimates for the October-March period is being distributed with OCD docket dated July 30, 1993.

CASE 10498: **(De Novo - Continued from July 22, 1993, Commission Hearing.)**

In the matter of Case No. 10498 being reopened upon application of Monty D. McLane to exempt certain working interests from the compulsory pooling provisions of Division Order No. R-9690, Lea County, New Mexico. Division Order No. R-9690, issued in Case 10498 and dated July 1, 1992, granted the application of Charles Gillespie to compulsorily pool all mineral interests from the surface to the base of the Strawn formation underlying Lot 3 of Section 1, Township 16 South, Range 35 East, forming a non-standard 51.08-acre oil spacing and proration unit. Said unit is to be dedicated to a well to be drilled at a standard oil well location thereon. At this time Monty D. McLane requests the Division enter an order reopening Case No. 10498 and declare that the working interests of Henry H. Lawton and Amanda K. Parks are not subject to said Order No. R-9690. Upon application of Charles B. Gillespie Jr., this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 10345: **(De Novo - Continued from July 22, 1993, Commission Hearing.)**

Application of Louise Y. Locke to consider objections to well costs, San Juan County, New Mexico. Applicant requests the Commission review actual well costs charged against her interest by BHP Petroleum (Americas), Inc., for the drilling of the Gallegos Canyon Unit Well #390 to determine the reasonableness of such costs pursuant to the provisions of Commission Order No. R-9581-A. Said well is located at the southeast edge of Farmington, New Mexico.

CASE 10346: **(De Novo - Continued from July 22, 1993, Commission Hearing.)**

Application of Louise Y. Locke to consider objections to well costs, San Juan County, New Mexico. Applicant requests the Commission review actual well costs charged against her interest by BHP Petroleum (Americas), Inc., for the drilling of the Gallegos Canyon Unit Well #391 to determine the reasonableness of such costs pursuant to the provisions of Commission Order No. R-9581-A. Said well is located at the southeast edge of Farmington, New Mexico.

CASE 10693: **(DE NOVO)**

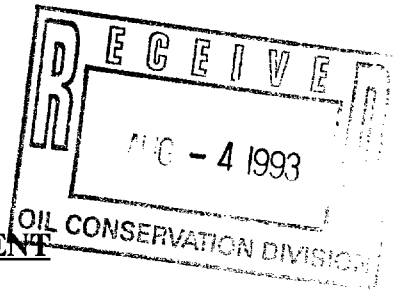
Application of Pronghorn SWD System for salt water disposal, Lea County, New Mexico. Applicant seeks authority to dispose of produced salt water into the Capitan Reef formation through the perforated interval from approximately 3220 feet to 5050 feet in its Brooks Federal "7" Well No. 6 located in Unit N, Section 7, Township 20 South, Range 33 East, which is approximately 1 mile northwest of Laguna Gatuna. Upon application of Pronghorn SWD System, this case will be heard De Novo pursuant to the provisions of Rule 1220.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 10772

APPLICATION OF BARBER OIL INC. FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.



PRE-HEARING STATEMENT

This Prehearing Statement is submitted by Campbell, Carr, Berge & Sheridan, P.A., as required by the Oil Conservation Division.

APPEARANCES OF PARTIES

APPLICANT	ATTORNEY
Barber Oil Inc. c/o Bob Light Post Office Box 1658 Carlsbad, New Mexico 88221-1658	William F. Carr, Esq. Campbell, Carr, Berge & Sheridan, P.A. Post Office Box 2208 Santa Fe, New Mexico 87504
(505) 887-2566 name, address, phone and contact person	(505) 988-4421
OPPOSITION OR OTHER PARTY	ATTORNEY
_____ _____ _____ _____	_____ _____ _____ _____
_____ name, address, phone and contact person	_____

STATEMENT OF CASE

APPLICANT

(Please make a concise statement of what is being sought with this application and the reasons therefore.)

Barber Oil Inc., applicant in the above-captioned cause, seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet.

OPPOSITION OR OTHER PARTY

(Please make a concise statement of the basis for opposing this application or otherwise state the position of the party filing this statement.)

PROPOSED EVIDENCE

APPLICANT

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS
Mike Garringer,	15 Min.	Approximately 2

OPPOSITION

WITNESSES (Name and expertise)	EST. TIME	EXHIBITS

PROCEDURAL MATTERS

(Please identify any procedural matters which need to be resolved prior to hearing)

William F. Carr
Signature

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

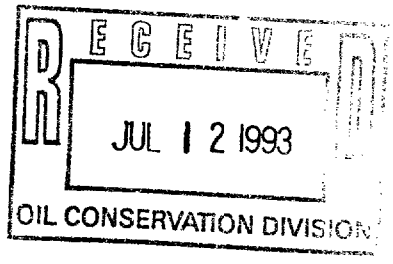
PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT
DAVID B. LAWRENZ

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
SUITE I - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

July 12, 1993

HAND-DELIVERED



William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 10772:
Application of Barber Oil Inc. for Salt Water Disposal, Eddy County, New Mexico

Dear Mr. LeMay:

Barber Oil Inc., respectfully requests that this matter which is currently set on the Division docket for the July 15, 1993 hearings be continued to the August 12, 1993 Division docket.

Your attention to this matter is appreciated.

Very truly yours,

WILLIAM F. CARR
WFC:mlh
cc: Bob Light
Mike Garringer
Barber Oil Inc.
Post Office Box 1658
Carlsbad, New Mexico 88221-1658

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
WILLIAM P. SLATTERY

PATRICIA A. MATTHEWS
MICHAEL H. FELDEWERT
DAVID B. LAWRENZ

JACK M. CAMPBELL
OF COUNSEL

JEFFERSON PLACE
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POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
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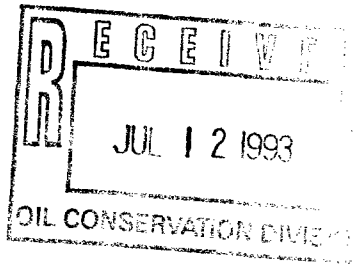
July 12, 1993

HAND-DELIVERED



William J. LeMay, Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals and Natural Resources
State Land Office Building
Santa Fe, New Mexico 87503

Re: Oil Conservation Division Case No. 10772:
Application of Barber Oil Inc. for Salt Water Disposal, Eddy County, New Mexico

Dear Mr. LeMay:

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Your attention to this matter is appreciated.

Very truly yours,

William F. Carr

WILLIAM F. CARR
WFC:mlh
cc: Bob Light
Mike Garringer
Barber Oil Inc.
Post Office Box 1658
Carlsbad, New Mexico 88221-1658

DOCKET: EXAMINER HEARING - THURSDAY - JULY 15, 1993
8:15 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO

Dockets Nos. 22-93 and 23-93 are tentatively set for July 29, 1993 and August 12, 1993. Applications for hearing must be filed at least 23 days in advance of hearing date.

The following cases will be heard before David R. Catanach, Examiner or Michael E. Stogner, Alternate Examiner:

CASE 10750: **(Readvertised)**

Application of Yates Petroleum Corporation for a unit agreement, Eddy County, New Mexico. Applicant seeks approval of the Wagon Unit Agreement for an area comprising 4,844.60 acres of the State and Fee lands in portions of Townships 22 and 23 South, Ranges 22 and 23 East, which is centered approximately at the H-Bar-Y Ranch.

CASE 10751: **(Readvertised)**

Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico. Applicant seeks approval of the Beartooth State Unit Agreement for an area comprising 2,468.72 acres, more or less, of State and Fee lands in Sections 22, 23, 26, 27, 34, and 35 of Township 26 South, Range 36 East, which is centered approximately 4 miles southwest of Bennett, New Mexico.

CASE 10763: **Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico.** Applicant seeks approval of the Sanmal Queen Unit Agreement for an area comprising 440 acres, more or less, of State land in Sections 1 and 12, Township 17 South, Range 33 East, which is centered approximately 3 miles north of Buckeye, New Mexico.

CASE 10764: **Application of Yates Petroleum Corporation for a unit agreement, Lea County, New Mexico.** Applicant seeks approval of the Saffron Unit Agreement for an area comprising 1,396.01 acres, more or less, of Federal and State lands in Sections 1, 2 and 3 of Township 23 South, Range 32 East, which is located approximately 24 miles west of Eunice, New Mexico.

CASE 10742: **(Continued from July 1, 1993, Examiner Hearing.)**

Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant seeks approval to drill to Sunflower "AHW" Federal Well No. 2 at a unorthodox location 660 feet from the North and East lines (Unit A) of Section 31, Township 19 South, Range 24 East. The N/2 of said Section 31 is to be dedicated to the well. Applicant further requests approval of the unorthodox location as to all prospective pools of formations including but not limited to the Abo, Wolfcamp, Cisco, Canyon, Strawn, Atoka and Morrow spaced on 320-acres. Said well is located approximately 8 miles south by southeast of Antelope Sink.

CASE 10747: **(Readvertised)**

Application of Nearburg Producing Company for salt water disposal, Eddy County, New Mexico. Applicant seeks authority to convert its M.H. Federal Well No. 1-1N located 660 feet from the South line and 1650 feet from the West line (Unit N) of Section 1, Township 22 South, Range 24 East, and utilize said well to dispose of produced salt water into the Cisco Canyon formation through the perforated interval from approximately 8219 feet to 8380 feet. Said well is located 1 mile east of Little Walt Spring.

CASE 10746: **(Readvertised)**

Application of Devon Energy Corporation for special pool rules, Eddy County, New Mexico. Applicant seeks the promulgation of special rules for the East Catclaw Draw-Delaware Pool located in Section 9, Township 21 South, Range 26 East, including a provision for a gas-oil ratio limitation of 6000 cubic feet of gas per barrel of oil. Said area is located approximately 3 miles east of Avalon Reservoir.

CASE 10541: **(Reopened - Continued from July 1, 1993, Examiner Hearing.)**

In the matter of Case 10541 being reopened pursuant to the provisions of Division Order No. R-9773, which order promulgated special pool rules and regulations for the East Herradura Bend-Delaware Pool in Eddy County. Operators in said pool may appear and present evidence and show cause why the foregoing Special Rules and Regulations should remain in effect.

CASE 10765: **Application of Blackwood & Nichols Co., a Limited Partnership, for directional drilling and an unorthodox bottomhole Fruitland-Coal Gas Well location, Rio Arriba County, New Mexico.** Applicant seeks authority to directionally drill its proposed Northeast Blanco Unit Well No. 479-R from a surface location 1170 feet from the North line and 2280 feet from the West line (Unit C) of Section 20, Township 30 North, Range 7 West, in such a manner as to bottom the well in the Basin-Fruitland Coal Gas Pool, at an unorthodox subsurface Coal Gas Well location within 50 feet of a point 100 feet from the North line and 590 feet from the West line (Unit D) of said Section 20. The W/2 of said Section 20 is to be dedicated to said well forming a standard 320-acre gas spacing and proration unit for said pool. Said unit is located approximately 45 miles east of Farmington, New Mexico.

CASE 10670: **(Reopened)**

In the matter of Case 10670 being reopened upon the application of Maralo, Inc. to set an effective date for the temporary special rules and regulations for the Northeast Jenkins-Devonian Pool promulgated by Division Order No. R-9912. Division Order No. R-9912, issued in Case 10670 and dated June 15, 1993, granted the application of Maralo, Inc. for the creation of a new Devonian Pool and the promulgation of temporary special rules and regulations therefor including provisions for 80-acre spacing and special well location requirements. At this time, Maralo, Inc. requests the Division enter an order reopening Case 10670 and establishing an effective date of March 1, 1993 for the temporary special rules and regulations for this pool. IN THE ABSENCE OF OBJECTION, THIS MATTER WILL BE TAKEN UNDER ADVISEMENT.

CASE 10766: **Application of David H. Arrington Oil & Gas Inc. for an unorthodox gas well location and non-standard gas spacing unit, Lea County, New Mexico.** Applicant seeks authorization to drill a well at an unorthodox location 1980 feet from the North line and 1650 feet from the West line (Unit F) of Section 11, Township 21 South, Range 36 East, Eumont Gas Pool. Applicant also seeks authority to dedicate a non-standard spacing unit comprised of the SE/4 NW/4, S/2 NE/4 and the NW/4 SE/4 of said Section 11 to said well. Said unit is located approximately 1 mile east of Oil Center, New Mexico.

CASE 10556: **(Reopened)**

In the matter of Case 10556 being reopened pursuant to the provisions of Division Order R-9759, which order promulgated special pool rules and regulations for the Old Millman Ranch-Bone Spring Pool in Eddy County, New Mexico. In addition, Chi Energy Inc. seeks the designation of the subject pool as an "associated" oil and gas pool with Order No. R-9759 to be superseded by Order No. R-5353 (the Associated Oil and Gas Pool Rules) and amended to provide for 160-acre gas well spacing and 80-acre oil well spacing.

CASE 10767: **Application of Santa Fe Energy Operating Partners, L.P. for compulsory pooling, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation underlying all of Section 5, Township 22 South, Range 24 East, forming a standard 640-acre gas spacing and proration unit for any and all formations and/or pools developed on 640-acre spacing within said vertical extent. Said unit is to be dedicated to its reentry of the Discovery Operating Walt Canyon 5 Fed Well No. 1 at a standard location in said Section 5. Also to be considered will be the cost of reentering and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in reentering and completing said well. Said well is located approximately 2 miles south of the Tepee.

CASE 10768: **Application of Santa Fe Energy Operating Partners, L.P. for compulsory pooling and an unorthodox well location, Eddy County, New Mexico.** Applicant seeks an order pooling all mineral interests from the surface to the base of the Cisco/Canyon formation underlying all of Section 8, Township 22 South, Range 24 East, forming a standard 640-acre gas spacing and proration unit for any and all formations and/or pools developed on 640-acre spacing unit within said vertical extent. Said unit is to be dedicated to its reentry of the Amoco Fed. Azotea Mesa Well No. 1-8 located 743 feet from the North line and 1055 feet from the West line of said Section 8. Also to be considered will be the cost of reentering and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in reentering and completing said well. Said well is located approximately 3 miles south of the Tepee.

CASE 10687: **(Continued from July 1, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from 500 feet below the top of the San Andres formation to the base of the Morrow formation underlying the following described areas in Section 17, Township 18 South, Range 28 East, and in the following manner: the E/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; and the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent. Said unit is to be dedicated to its Illinois Camp "17" State Well No. 2, to be drilled at a standard location within said E/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 2 miles north of Illinois Camp.

CASE 10688: **(Continued from July 1, 1993, Examiner Hearing.)**

Application of Mewbourne Oil Company for compulsory pooling, Eddy County, New Mexico. Applicant seeks an order pooling all mineral interests from the base of the Abo formation to the base of the Morrow formation underlying the following described areas in Section 31, Township 17 South, Range 28 East, and in the following manner: the S/2 forming a standard 320-acre gas spacing and proration unit for any and all formations and/or pools developed on 320-acre spacing within said vertical extent; the SE/4 forming a standard 160-acre gas spacing and proration unit for any and all formations and/or pools developed on 160-acre spacing within said vertical extent; and the SW/4 SE/4 forming a standard 40-acre oil spacing and proration unit for any and all formations and/or pools developed on 40-acre spacing within said vertical extent. Said unit is to be dedicated to its Chalk Bluff "31" State Well No. 1, to be drilled at a standard location within said S/2 proration unit. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 1 mile southwest of the Baylor Triangulation Station.

CASE 10769: **Application of H. L. Brown for an unorthodox oil well location, Roosevelt County, New Mexico.** Applicant seeks approval to drill his Federal Well No. 27-2 to test the North Bluitt Siluro-Devonian Pool at an unorthodox location 2590 feet from the South line and 330 feet from the West line (Unit L) of Section 27, Township 7 South, Range 37 East. The N/2 SW/4 of said Section 27 is to be dedicated to said well forming a standard 80-acre oil spacing and proration unit. Said unit is located approximately 10 miles east of Milnesand, New Mexico.

CASE 10770: **Application of Bahlburg Exploration Inc. to amend Division Order No. R-8989, Lea County, New Mexico.** Applicant seeks to amend Division Order No. R-8989 so that its Lowe "25" Well No. 1, which was drilled to test the Undesignated King-Devonian Pool at a previously approved unorthodox location 990 feet from the South line and 50 feet from the West line (Unit M) of Section 25, Township 13 South, Range 37 East, can be recompleted and produced in any shallower formation which is found to be productive, including but not limited to the King-Wolfcamp Pool. If the subject well is recompleted as an oil well, the NW/4 NW/4 (40 acres) will be dedicated to the well. Said well is located approximately 14 miles southeast of Tatum, New Mexico.

CASE 10771: **Application of OXY USA Inc. to authorize the expansion of a portion of its Skelly Penrose "B" Unit Waterflood Project and qualify said expansion for the recovered oil tax rate pursuant to the "New Mexico Enhanced Oil Recovery Act," Lea County, New Mexico.** Applicant seeks an order pursuant to the rules and procedures for Qualification of Enhanced Oil Recovery Projects and Certification for the Recovery Oil Tax Rate, as promulgated by Division Order No. R-9708, qualifying a portion of its Skelly Penrose "B" Unit Waterflood Project in Sections 4, 5, and 8 of Township 23 South, Range 37 East, Queen (Penrose) formation of the Langlie Mattix Seven Rivers-Queen-Grayburg Pool, for the recovered oil tax rate under the "Enhanced Oil Recovery Act" (Law 1992, Chapter 38, Sections 1 through 5). Applicant further seeks authority to expand a portion of said project by means of a significant change in process including conversion to 40-acre five spot injection patterns. Said project area is located approximately 6 miles south of Eunice, New Mexico.

CASE 10772: **Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico.** Applicant seeks authority to utilize its Stovall-Wood Well No. 5 located 880 feet from the North line and 1580 feet from the West line (Unit C) of Section 20, Township 20 South, Range 30 East, to dispose of produced salt water into the Rustler Lime formation through the perforated interval from approximately 195 feet to 255 feet. Said well is located 2 miles northeast of the National Potash Company Mine.

CASE 10513: **(Continued from June 17, 1993, Examiner Hearing.)**

Application of Hanley Petroleum Inc. for determination of reasonable well costs, Lea County, New Mexico. Applicant, in the above-styled cause, as a working interest owner in the Santa Fe Energy Operating Partners, L.P. Kachina "8" Federal Well No. 2 located 1830 feet from the North line and 660 feet from the West line (Unit E) of Section 8, Township 18 South, Range 33 East, South Corbin-Wolfcamp Pool, which was drilled pursuant to the compulsory pooling provisions of Division Order Nos. R-9480, R-9480-A, and R-9480-B, all entered in Case Nos. 10211 and 10219, and to which is dedicated the W/2 NW/4 (Units D and E) of said Section 8, seeks an order ascertaining the reasonableness of actual well costs for the subject well. Said unit is located approximately 7.5 miles southeast by south of Maljamar, New Mexico.

Docket No. 21-93

DOCKET: COMMISSION HEARING - THURSDAY - JULY 22, 1993
9:00 A.M. - MORGAN HALL, STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO
The Land Commissioner's designee for this hearing will be Jami Bailey

CASE 10498: **(De Novo)**

In the matter of Case No. 10498 being reopened upon application of Monty D. McLane to exempt certain working interests from the compulsory pooling provisions of Division Order No. R-9690, Lea County, New Mexico. Division Order No. R-9690, issued in Case 10498 and dated July 1, 1992, granted the application of Charles Gillespie to compulsorily pool all mineral interests from the surface to the base of the Strawn formation underlying Lot 3 of Section 1, Township 16 South, Range 35 East, forming a non-standard 51.08-acre oil spacing and proration unit. Said unit is to be dedicated to a well to be drilled at a standard oil well location thereon. At this time Monty D. McLane requests the Division enter an order reopening Case No. 10498 and declare that the working interests of Henry H. Lawton and Amanda K. Parks are not subject to said Order No. R-9690. Upon application of Charles B. Gillespie Jr., this case will be heard De Novo pursuant to the provisions of Rule 1220.

CASE 10653: **(De Novo - Continued from May 27, 1993, Commission Hearing.)**

Application of Armstrong Energy Corporation for special pool rules, Lea County, New Mexico. In the De Novo application, the applicant seeks an order promulgating special rules and regulations for the Northeast Lea-Delaware Pool including a provision for a special oil allowable of 300 barrels of oil per day. Said pool is located in portions of Townships 19 and 20 South, Range 34 East, located near the Warren Gas Company Compressor Station. Upon application of Armstrong Energy Corporation, this case will be heard De Novo pursuant to the provisions of Rule 1220. The amended application seeks the abolishment of the Quail Ridge-Delaware Pool located in a portion of Township 20 South, Range 34 East, and the concomitant extension of the Northeast Lea-Delaware Pool.

CASE 10773: **Application of Armstrong Energy Corporation for pool extension and abolishment, Lea County, New Mexico.** Applicant, in the above-styled cause, and in association with De Novo Case No. 10653, seeks to abolish the Quail Ridge-Delaware Pool comprising the SW/4 of Section 3, SE/4 of Section 4, NE/4 of Section 9, N/2 and SW/4 of Section 10, all in Township 20 South, Range 34 East and the concomitant extension of the horizontal limits of the Northeast Lea-Delaware Pool to include all of above-described acreage plus the SE/4 of said Section 3. This area is centered approximately 1.5 miles south of U.S. Highway 62/180 at Milemarker No. 79.

CASE 10345: **(De Novo - Continued from June 24, 1993, Commission Hearing.)**

Application of Louise Y. Locke to consider objections to well costs, San Juan County, New Mexico. Applicant requests the Commission review actual well costs charged against her interest by BHP Petroleum (Americas), Inc., for the drilling of the Gallegos Canyon Unit Well #390 to determine the reasonableness of such costs pursuant to the provisions of Commission Order No. R-9581-A. Said well is located at the southeast edge of Farmington, New Mexico.

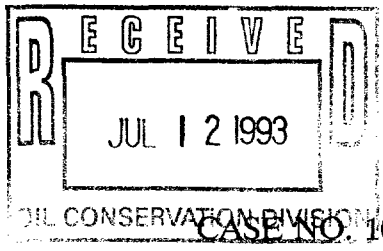
CASE 10346: **(De Novo - Continued from June 24, 1993, Commission Hearing.)**

Application of Louise Y. Locke to consider objections to well costs, San Juan County, New Mexico. Applicant requests the Commission review actual well costs charged against her interest by BHP Petroleum (Americas), Inc., for the drilling of the Gallegos Canyon Unit Well #391 to determine the reasonableness of such costs pursuant to the provisions of Commission Order No. R-9581-A. Said well is located at the southeast edge of Farmington, New Mexico.

BEFORE THE

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

OIL CONSERVATION DIVISION



IN THE MATTER OF THE APPLICATION
OF BARBER OIL INC. FOR
SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.

CASE NO. 10772

ENTRY OF APPEARANCE

COMES NOW CAMPBELL, CARR, BERGE & SHERIDAN, P.A., and hereby enters its appearance in the above referenced case on behalf of Barber Oil Inc.

Respectfully submitted,

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.

By: William F. Carr

WILLIAM F. CARR
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

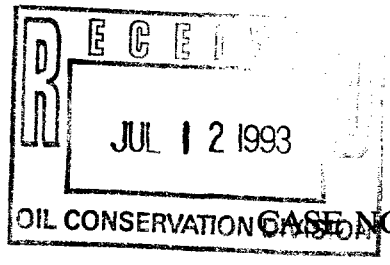
ATTORNEYS FOR BARBER OIL INC.

BEFORE THE

NEW MEXICO DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION
OF BARBER OIL INC. FOR
SALT WATER DISPOSAL,
EDDY COUNTY, NEW MEXICO.



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CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.

By: William F. Carr

WILLIAM F. CARR
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone: (505) 988-4421

ATTORNEYS FOR BARBER OIL INC.

SNYDER RANCHES

LARRY C. SQUIRES
President

P. O. BOX 2158
HOBBS, NEW MEXICO 88241

Telephone
(505) 393-7544

OIL CONSERVATION DIVISION
RECEIVED

'93 JUN 10 AM 8 49

RECEIVED
JUN 8 1993
O. C. D.

June 4, 1993

Mr. Bill LeMay
Oil Conservation Division
Post Office Box 1980
Hobbs, New Mexico 88241

Case 10772

Re: Barber Oil, Inc.
Application for Disposal Well
Stovall-Wood #5, Unit C,
Section 20, Township 20 South, Range 30 East,
Eddy County, New Mexico

Dear Bill:

We strongly object to the approval of the above disposal well application for the following reasons:

1. Located on our fee surface;
2. This well operated for years with improper permit or incomplete permit;
3. Casing was rusted out for years at 40' below surface and has completely destroyed the fresh water in the area;
4. Shallow underground aquifer in the area is completely saturated and destroyed our property in and around our corrals and has created a wetlands;
5. OCD Office in Artesia did not know this disposal well was in existence until I brought it to their attention. They had no records of amounts of water disposed of in the well;
6. This well is too shallow to dispose of potentially hazardous materials;
7. Barber Oil, Inc. has created and maintained a nuisance in this area for years and it should be stopped.

Very truly yours

SNYDER RANCHES, INC.

By: Larry C. Squires
Larry C. Squires, President

cc: Mr. J. W. Neal
cc: Mr. Thomas Kellahin

BARBER OIL, INC.
111 West Mermod
Post Office Box 1658
CARLSBAD, NEW MEXICO 88220
(505) 887-2566

OIL CONSERVATION DIVISION
RECEIVED
'93 MAY 26 AM 9 15

10772

Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87504-2088

Attn: Mr. William J. LeMay
Division Director

Re: Form C-108 (Application to Inject)
Stovall-Wood #5
C 20-20S-30E
Eddy County, NM

RECEIVED PROTECTION FROM LARRY SQUIRES. 6-15-93 (NEXT PAGE) (83) SET FOR HEARING.

Dear Mr. LeMay:

Please find enclosed a formal Application for Authorization to Inject, Form C-108 as requested in your letter of May 12, 1993.

Please be advised this well was reworked beginning February 18, 1991 under the direct supervision of the OCD. We do not anticipate any problems with conformance with Division Rules and Regulations. The well is available at anytime for a mechanical integrity test, however we respectfully request a day or two notice as the test will require shutting down the entire Barber field for a few hours. The sooner we are able to restart the wells the less effect it has on our production.

After reviewing the enclosed application, if you or any of your staff have any questions or comments please feel free to contact us at the number above.

Sincerely,

Michael D. Garringer
President

Enclosures - 1 Original C-108
1 photocopy of same

XC: OCD
P. O. Drawer DD
Artesia, NM 88210

SALLY,
BOB ASKED ME TO GIVE THIS TO YOU TO START A FILE & DRAFT AD AS PER LEGAL NOTICE ATTACHED TO THE BACK OF THIS APPLICATION.
THANKS,

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 10772

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: BARBER OIL, INC.

Address: P. O. BOX 1658 CARLSBAD, NM 88221-1658

Contact party: MICHAEL D. GARRINGER Phone: 887-2566

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: MICHAEL D. GARRINGER Title PRESIDENT

Signature: Michael D. Garringer Date: 5/18/93

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. WELL WAS REWORKED ON 2/18/93 INFORMATION SUBMITTED AT THAT TIME.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
BARBER OIL, INC.
STOVALL-WOOD #5
C 20-20S-30E
EDDY COUNTY, NEW MEXICO

I. The purpose of permitting this well is for disposal of produced water from the Barber Pool in the Yates formation.

II. OPERATOR: Barber Oil, Inc.
P. O. Box 1658
Carlsbad, NM 88221-1658
Michael D. Garringer, President
(505) 887-2566

III. See Attachment "A"

IV. This project is not an expansion of an existing project.

V. See map - Attachment "B"

VI. All wells within the area of review are operated by Barber Oil, Inc. All wells and well information are on file with the OCD.

VII. 1. Proposed average daily injection volume is ±5,000 BWPD. Maximum injection is ±5,000 BWPD.
2. The system is closed.
3. Average injection pressure - NONE (on vacuum)
4. Reinjected produced water from the Yates-Seven Rivers formation only.
5. The Rustler formation has accepted water from this field for over 50 years. The natural characteristics of the Rustler formation in this area are not known as there is extensive potash mining in the area and all known ground water is brackish and heavy with chlorides. See Attachment "C" for water analysis on both produced water, injected water and a water sample from a nearby pond.

VII. 1. The injection interval is in the Rustler Lime formation. The interval extends from 195' to 255'.
2. There are no fresh water zones above or below this formation. Surface water (as noted in VII. 5 above)is brackish and briny and has been since at least the early 1950's as reported by our employees who have lived at the location.

IX. The interval is untreated.

X. No logs or well tests have been performed on this well. The well was originally drilled in the late 1930's as a water disposal well and no logs or well tests were performed at that time.

XI. No working windmills exist within the area of review. Several years ago the only working windmill in the area was shut in and all fresh water for the rancher in the area, as well as for our lease facilities are obtained from a nearby potash mine.

XII. There is no evidence of geologic faulting in the proposed interval.

XIII. Proof of Notice:

A. Photocopy of Certified Letter to the surface owner. There are no offset operators in the area of review. See Attachment "D".

B. Photocopy of legal notice as published in the Carlsbad Current-Argus. See Attachment "E"

XIV. Certification is signed.

BARBER OIL, INC.
STOVALL-WOOD #5
C 20-20S-30E

ATTACHMENT 'A'
PAGE 1

III. WELL DATA

A. 1. Lease Name/Location
Stovall-Wood #5
C 20-20S-30E
880' FNL and 1580' FWL

2. Casing Strings
A. Present Well Condition
8-5/8" 24# @ 195' (cement unknown) upper portion of pipe is totally destroyed as of 2/18/9[illegible]

on 2/18/9[illegible] ran 7" 26# set at 114' and cemented to surface.

Present T.D. 255'

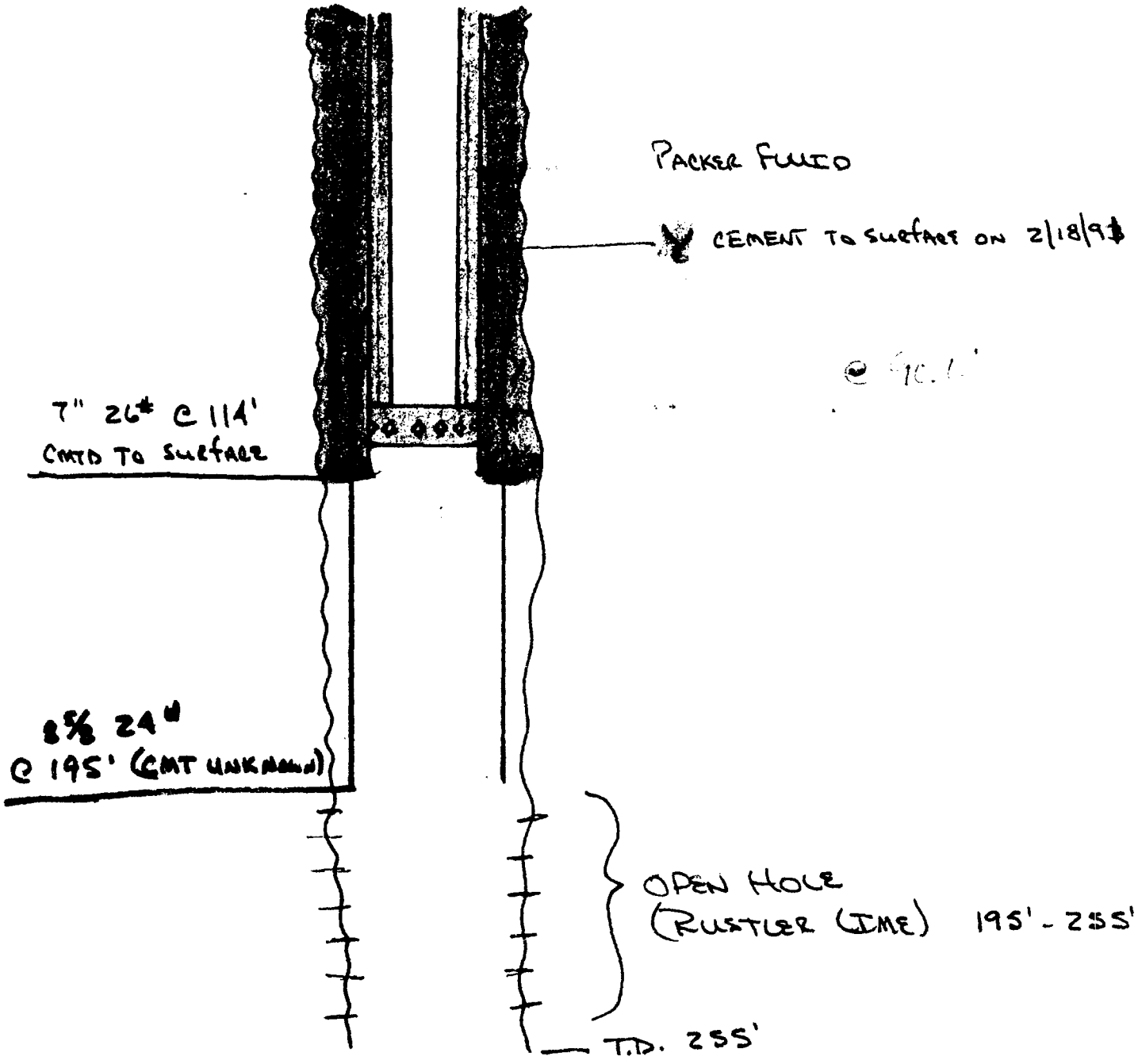
Well taking up to 5,000 BWPD on vacuum.

3. Tubing:
90.6' 5½" 17# N-80 LT&C. 5½" X 7" annulus filled with Baker packer fluid.
NOTE: We have just purchased a new string of 5½" 17# and had it plastic coated. Ready to run in well.

4. Arrow type S/L 5½ X 7 packer set at 90.6'/

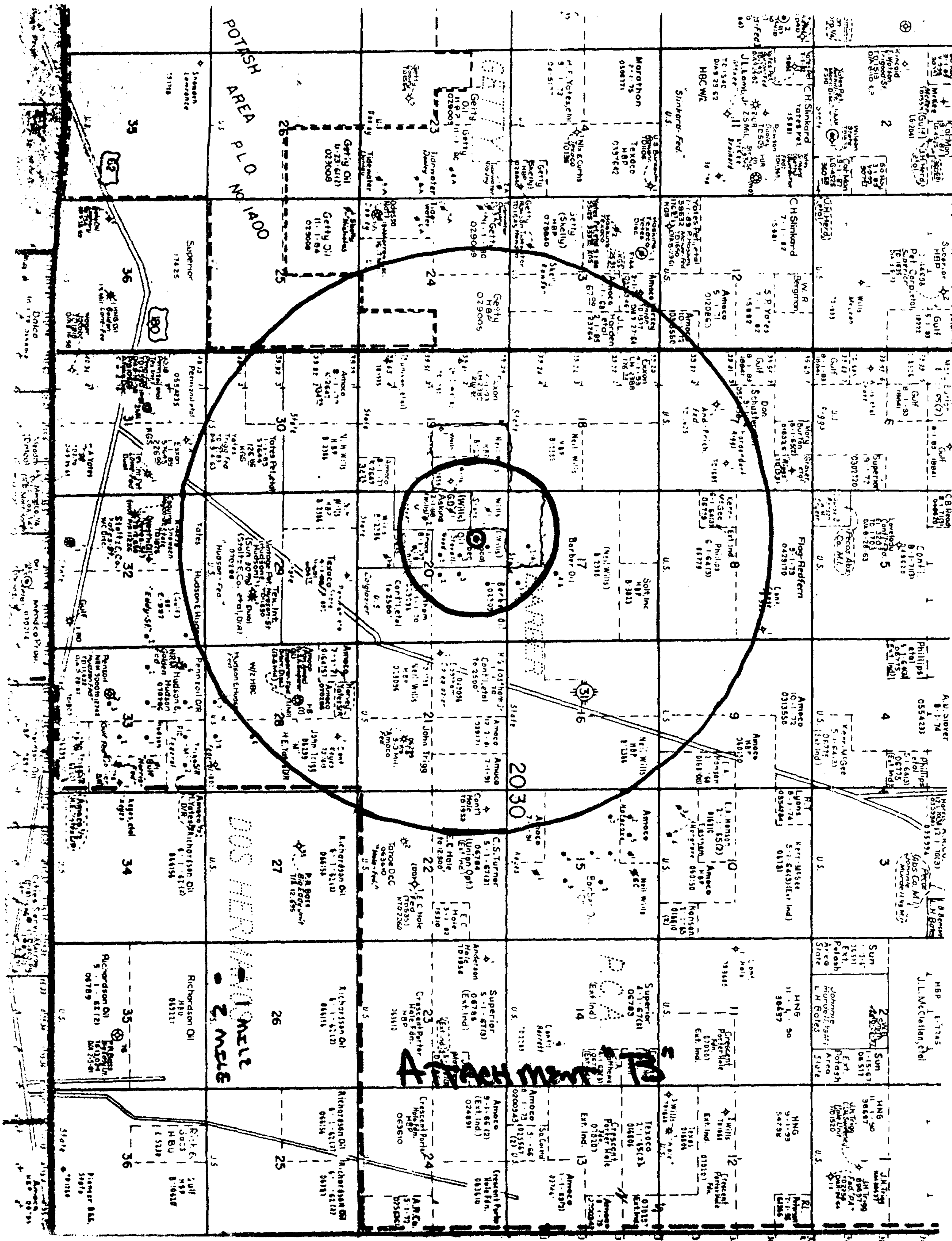
B. 1. Injection information - Rustler Lime formation (Ochoan)
2. Injection Interval - 195' - 255'
3. Well was drilled in 1938 as a water disposal well.
4. No other intervals are perforated
5. Next Higher oil or gas zone- NONE
Next Lower oil or gas zone- Yates/Seven Rivers (about 1500')

See Schematic Next Page



SKETCH NOT TO SCALE

ATTACHMENT A-2



ATTACHMENT B
POTASH AREA PLO NO 1400
½ MILE
2 MILE

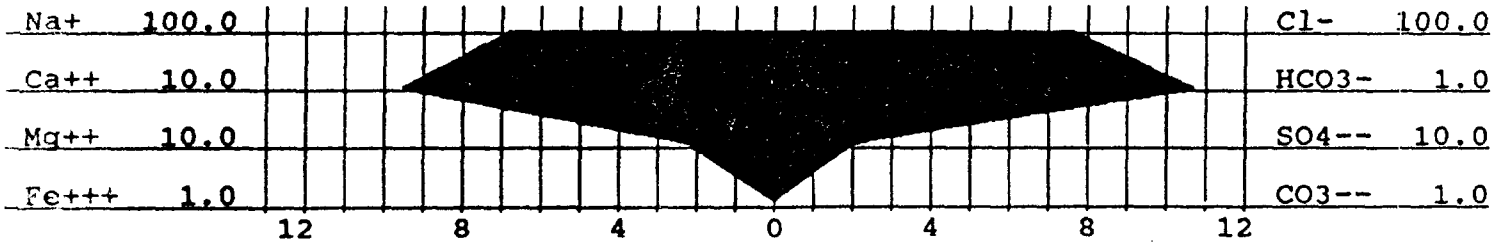
ATTACHMENT C-1

BAKER PERFORMANCE CHEMICALS
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL COMPANY

Date of Analysis:	APRIL 28, 1992	**Analysis #:**	N/D
Company:	BARBER OIL COMPANY	**Company Address:**	CARLSBAD
State:	N.M.	**Field:**	N/D
Lease:	SWD (Stewart Wood #5)	**Well #:**	N/D
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	PRODUCED	**Temp.,C:**	29.15
Sample Source:	WELL HEAD	**Date of Sampling:**	APRIL 24, 1992
Representative:	STEVE STROUD	**Analysis By:**	JEFF EMERSON

WATER ANALYSIS PATTERN
(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	120.00	
Calcium, (Ca++) :	98.00	1964.72
Magnesium, (Mg++):	22.00	267.33
Iron, (Fe+++) :	0.00	0.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	701.66	16138.17
Manganese, (Mn++):	0.00	0.00
ANIONS		
Chloride, Cl- :	788.73	27998.93
Sulfate, SO4-- :	20.29	975.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate,HCO3-:	11.00	671.14
Hydroxyl,OH- :	0.00	0.00
Sulfide, S-- :	1.64	26.32
TOTAL SOLIDS (quant.):		48041.61

DISSOLVED GASES

Hydrogen sulfide:	157.00	mg/l
Carbon dioxide :	150.48	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	6.25
Spec Grav. :	1.040
TDS (calc.) :	48027.94

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
25.0	-0.37	3650	0
45.0	0.08	3929	0
65.0	0.67	3612	1
Max entity, (calc.)		1401	0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.
@20'C...SLIGHTLY CORROSIVE.

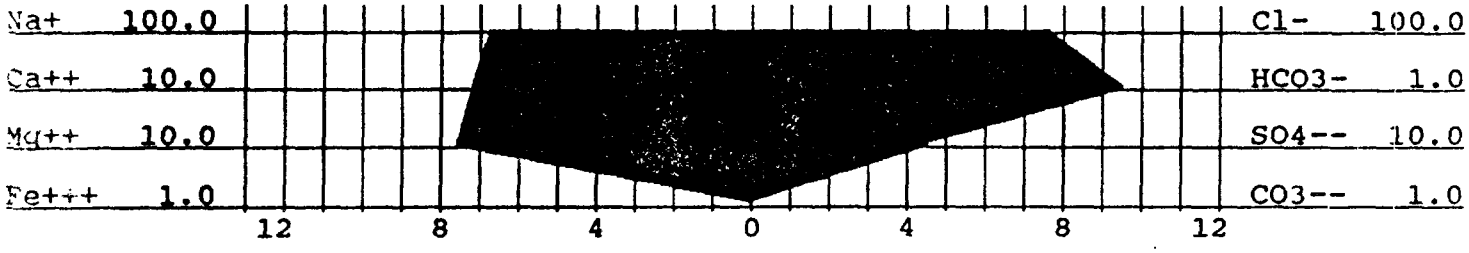
C-2

BAKER OIL TREATING
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL CO.

Date of Analysis:	JULY 9, 1992	**Analysis #:**	1593
Company:	BARBER OIL CO.	**Company Address:**	CARLSBAD
State:	NEW MEXICO	**Field:**	N/D
Lease:	STOVALL-WOODS #1	**Well #:**	#1
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	PRODUCED	**Temp.,C:**	20
Sample Source:	WELLHEAD	**Date of Sampling:**	JULY 6, 1992
Representative:	STEVE STROUD	**Analysis By:**	CLYDE WILHOIT

WATER ANALYSIS PATTERN
(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	152.00	
Calcium, (Ca++) :	74.00	1483.56
Magnesium, (Mg++):	78.00	947.81
Iron, (Fe+++) :	0.05	1.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	694.86	15981.75
Manganese, (Mn++):	0.00	0.00
ANIONS		
Chloride, Cl- :	788.73	27998.93
Sulfate, SO4-- :	46.82	2250.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate,HCO3-:	9.80	597.93
Hydroxyl,OH- :	0.00	0.00
Sulfide, S-- :	1.56	25.04
TOTAL SOLIDS (quant.):		49286.02

DISSOLVED GASES

Hydrogen sulfide:	100.00	mg/l
Carbon dioxide :	186.12	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	6.45
Spec Grav. :	1.030
TDS (calc.) :	49272.34

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
20.0	-0.44	5007	0
30.0	-0.25	5170	0
40.0	-0.03	5330	0
Max entity, (calc.)		3234	0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20 C SLIGHTLY CORROSIVE

@20 C CALCIUM SULFATE SCALING IS UNLIKELY

C-3

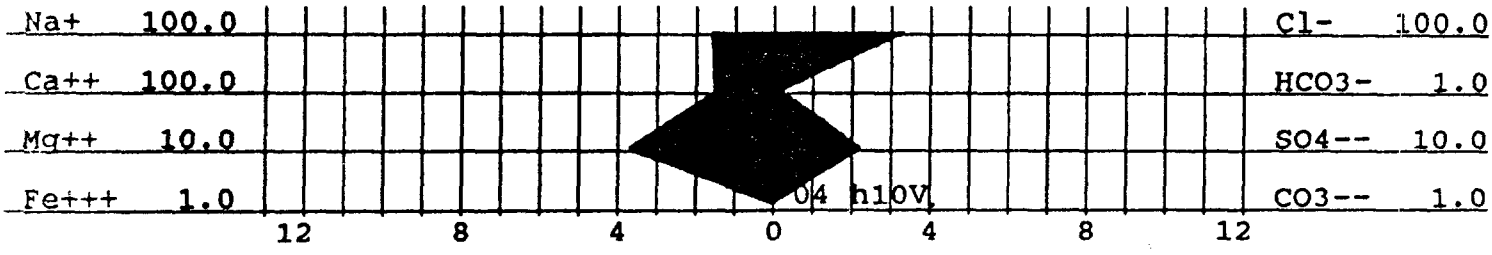
BAKER PERFORMANCE CHEMICALS
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL COMPANY

Date of Analysis:	APRIL 28, 1994	**Analysis #:**	N/D
Company:	BARBER OIL COMPANY	**Company Address:**	CARLSBAD
State:	N.M.	**Field:**	N/D
Lease:	POND WATER	**Well #:**	N/D
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	FRESH WATER	**Temp.,C:**	27.50
Sample Source:	SURFACE	**Date of Sampling:**	APRIL 24, 1994
Representative:	STEVE STROUD	**Analysis By:**	JEFF EMERSON

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS		me/l	mg/l
Total Hardness	:	198.00	
Calcium, (Ca++)	:	160.00	3207.70
Magnesium, (Mg++)	:	38.00	461.75
Iron, (Fe+++)	:	0.00	0.00
Barium, (Ba++)	:	N/D	N/D
Sodium, Na+(calc)	:	165.53	3807.21
Manganese, (Mn++)	:	0.00	0.00
ANIONS			
Chloride, Cl-	:	340.34	12081.65
Sulfate, SO4--	:	22.89	1100.00
Carbonate, CO3--	:	0.00	0.00
Bicarbonate, HCO3-	:	0.30	18.30
Hydroxyl, OH-	:	0.00	0.00
Sulfide, S--	:	0.00	0.00
TOTAL SOLIDS (quant.)	:		20676.61

DISSOLVED GASES

Hydrogen sulfide	:	0.00	mg/l
Carbon dioxide	:	0.00	mg/l
Oxygen	:	N/D	mg/l

PHYSICAL PROPERTIES

pH	:	8.05
Spec Grav.	:	1.020
TDS (calc.)	:	20676.92

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
25.0	0.23	1880	0
45.0	0.68	2020	0
65.0	1.27	1907	0
Max entity, (calc.)		1567	0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.
@20'C...SLIGHTLY CORROSIVE, AND SLIGHT CARBONATE SCALING.

BARBER OIL, INC.
111 West Mermod
Post Office Box 1658
CARLSBAD, NEW MEXICO 88220
(505) 887-2566

May 18, 1993

Snyder Ranches
P. O. Box 2158
Hobbs, NM 88241

Attn: Mr. Larry Squires

CERTIFIED - Return Receipt Requested
Item No. P 603 313 683

Dear Mr. Squires:

Please find enclosed a copy of Form C-108 (Application for Authority to Inject) on Barber's Stovall-Wood #5 located in Unit C of Section 20, T20S-R30E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 887-2566.

Sincerely,

Michael D. Carringer
President

Enclosure

ATTACHMENT "D"

№ 14321

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

E. C. Cantwell, being first duly sworn, on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

MAY 20 , 19 93

, 19

, 19

, 19

that the cost of publication is $ 21.00, and that payment thereof has been made and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this 20 day of MAY, 19 93

Linda J. Martin

My commission expires 7/22/96

Notary Public

May 20, 1993

LEGAL NOTICE

Barber Oil Inc., P. O. Box 1658, 111 W. Mermod, Carlsbad, NM 88221, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The well, known as the "Stovall-Wood #5" located 660' FNL and 1580' FWL of Section 20, Township 20 South, Range 30 East, Eddy County, New Mexico, will be used for saltwater disposal only. Disposal waters from the Yates-Seven Rivers will be injected into the Rustler formation at a depth of 195'-255' at a rate of 5,000 BWPD on vacuum.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information may be obtained by contacting Mike Garringer at (505) 887-2566.

ATTACHMENT "E"

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-1-81

Case 10772

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: BARBER OIL, INC.

Address: P. O. BOX 1658 CARLSBAD, NM 88221-1658

Contact party: MICHAEL D. GARRINGER Phone: 887-2566

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

* VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

* X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

* XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: MICHAEL D. GARRINGER Title PRESIDENT

Signature: Michael D. Garringer Date: 5/18/93

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. WELL WAS REWORKED ON 2/18/93 INFORMATION SUBMITTED AT THAT TIME.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
BARBER OIL, INC.
STOVALL-WOOD #5
C 20-20S-30E
EDDY COUNTY, NEW MEXICO

I. The purpose of permitting this well is for disposal of produced water from the Barber Pool in the Yates formation.

II. OPERATOR: Barber Oil, Inc.
P. O. Box 1658
Carlsbad, NM 88221-1658
Michael D. Garringer, President
(505) 887-2566

III. See Attachment "A"

IV. This project is not an expansion of an existing project.

V. See map - Attachment "B"

VI. All wells within the area of review are operated by Barber Oil, Inc. All wells and well information are on file with the OCD.

VII. 1. Proposed average daily injection volume is ±5,000 BWPD. Maximum injection is ±5,000 BWPD.
2. The system is closed.
3. Average injection pressure - NONE (on vacuum)
4. Reinjected produced water from the Yates-Seven Rivers formation only.
5. The Rustler formation has accepted water from this field for over 50 years. The natural characteristics of the Rustler formation in this area are not known as there is extensive potash mining in the area and all known ground water is brackish and heavy with chlorides. See Attachment "C" for water analysis on both produced water, injected water and a water sample from a nearby pond.

VII. 1. The injection interval is in the Rustler Lime formation. The interval extends from 195' to 255'.
2. There are no fresh water zones above or below this formation. Surface water (as noted in VII. 5 above)is brackish and briny and has been since at least the early 1950's as reported by our employees who have lived at the location.

IX. The interval is untreated.

X. No logs or well tests have been performed on this well. The well was originally drilled in the late 1930's as a water disposal well and no logs or well tests were performed at that time.

XI. No working windmills exist within the area of review. Several years ago the only working windmill in the area was shut in and all fresh water for the rancher in the area, as well as for our lease facilities are obtained from a nearby potash mine.

XII. There is no evidence of geologic faulting in the proposed interval.

XIII. Proof of Notice:

A. Photocopy of Certified Letter to the surface owner. There are no offset operators in the area of review. See Attachment "D".

B. Photocopy of legal notice as published in the Carlsbad Current-Argus. See Attachment "E"

XIV. Certification is signed.

BARBER OIL, INC.
STOVALL-WOOD #5
C 20-20S-30E

ATTACHMENT 'A'
PAGE 1

III. WELL DATA

A. 1. Lease Name/Location
Stovall-Wood #5
C 20-20S-30E
880' FNL and 1580' FWL

2. Casing Strings
A. Present Well Condition
8-5/8" 24# @ 195' (cement unknown) upper portion of pipe is totally destroyed as of 2/18/9[illegible]

on 2/18/9[illegible] ran 7" 26# set at 114' and cemented to surface.

Present T.D. 255'

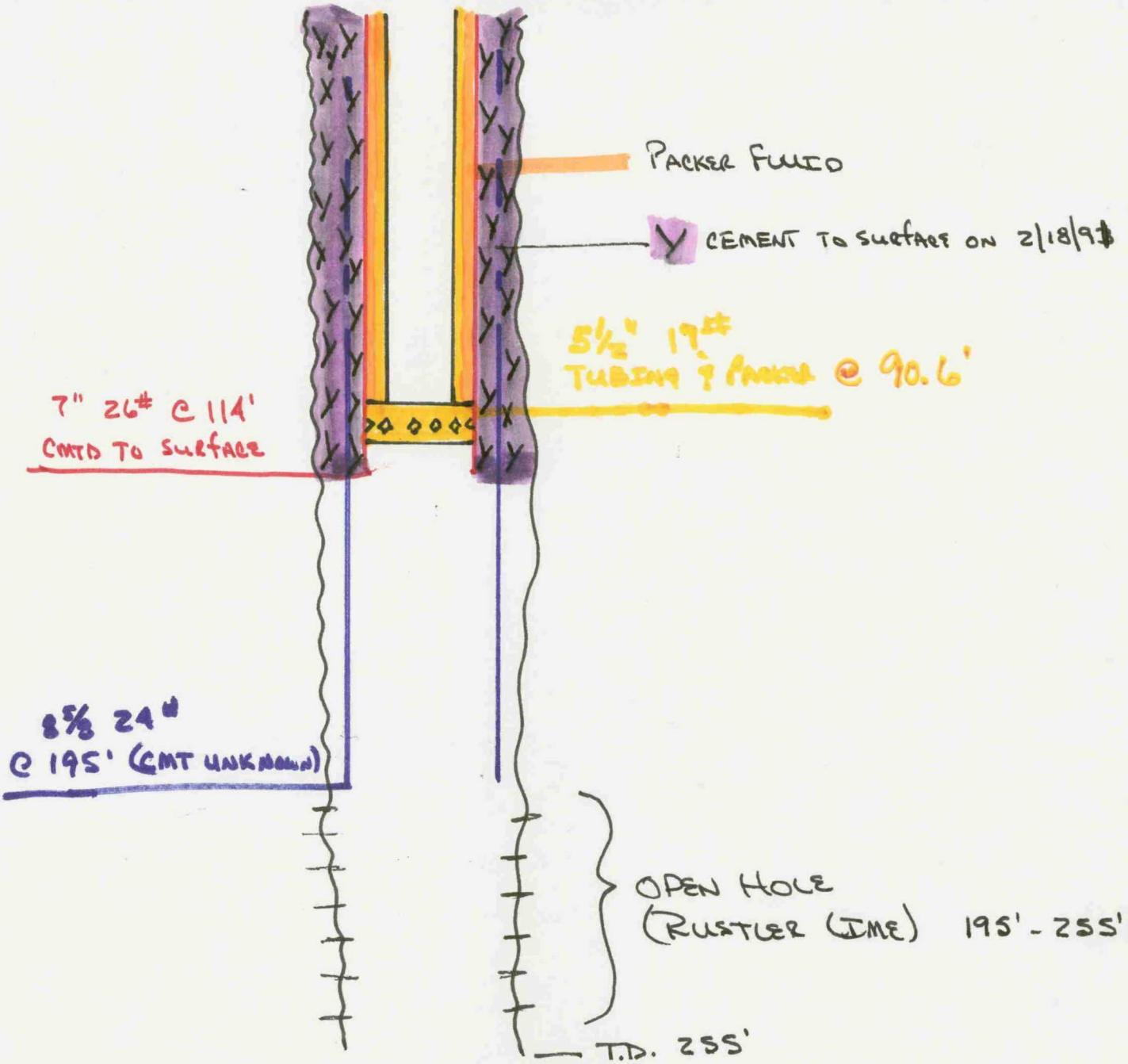
Well taking up to 5,000 BWPD on vacuum.

3. Tubing:
90.6' 5½" 17# N-80 LT&C. 5½" X 7" annulus filled with Baker packer fluid.
NOTE: We have just purchased a new string of 5½" 17# and had it plastic coated. Ready to run in well.

4. Arrow type S/L 5½ X 7 packer set at 90.6'/

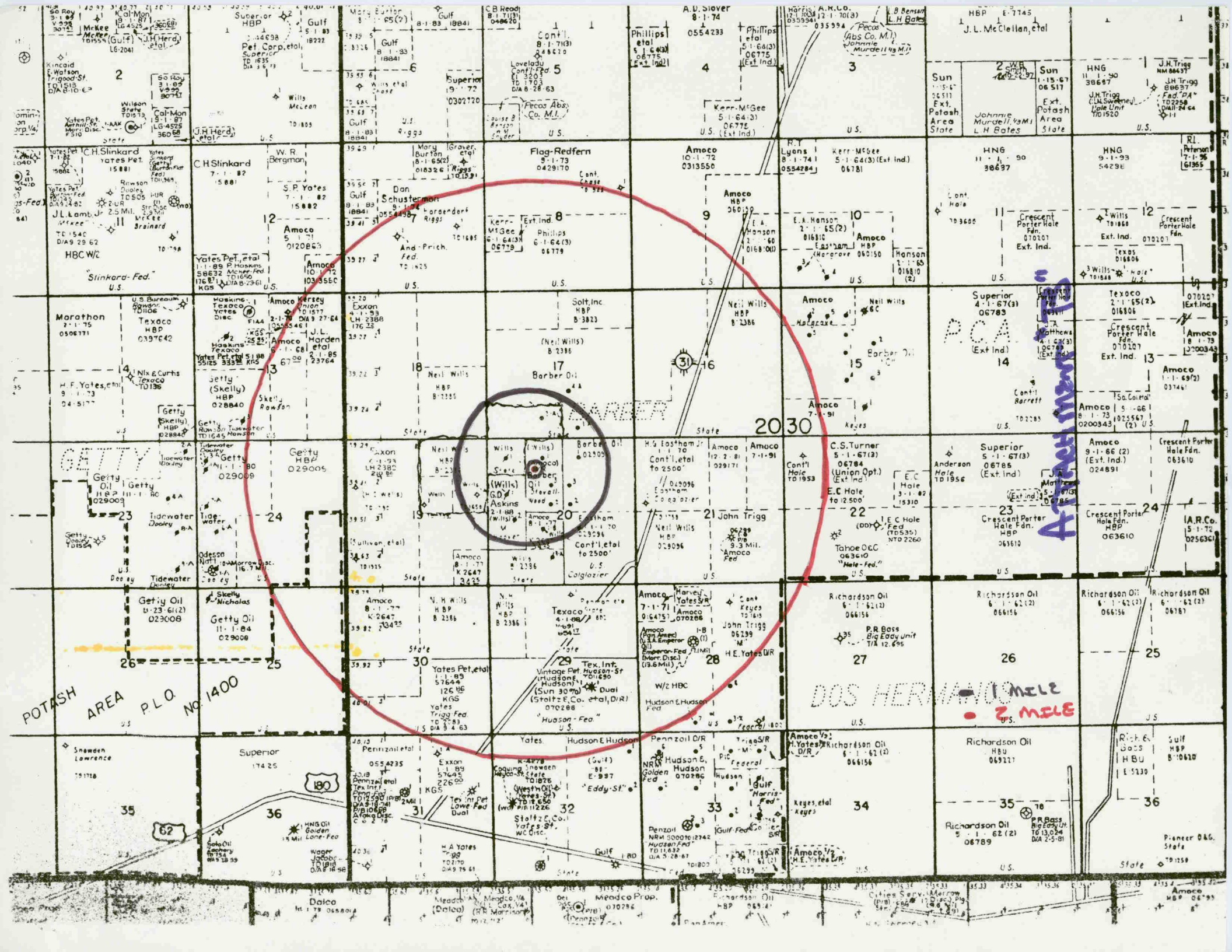
B. 1. Injection information - Rustler Lime formation (Ochoan)
2. Injection Interval - 195' - 255'
3. Well was drilled in 1938 as a water disposal well.
4. No other intervals are perforated
5. Next Higher oil or gas zone- NONE
Next Lower oil or gas zone- Yates/Seven Rivers (about 1500')

See Schematic Next Page



SKETCH NOT TO SCALE

ATTACHMENT A-2


Flag-Redfern
Amoco
Barber Oil
Getty
Getty Oil
Tidewater Dooley
Texaco HBP 039642
Marathon
Superior
Richardson Oil
Crescent Porter Hale Fdn.
Texaco
Exxon
Tex. Int.
Vintage Pet. (Hudson & Hudson)
Yates Pet, etal
Penzoil etal
Hudson E Hudson
Pennzoil D/R
Amoco
Gulf
Phillips etal
Kerr-McGee
Cont'l
Superior
Wills
Mc Leon
Johnnie Murdell
L.H. Bates
J.L. McClellan, etal
Pecos Abs Co. M.I.
Pecos (Abs Co. M.I.)
Johnnie Murdell
L.H. Bates
Sun
Ext. Potash Area
State
Johnnie Murdell
L.H. Bates
J.H. Trigg
Fed. "D"
Dale Unit
Crescent Porter Hale Fdn.
Ext. Ind.
Texas
Sq. Co. etal
Anderson Hale
Richardson Oil
P.R. Bass
Big Eddy unit
T/A 12.695
DOS HERMANOS
1 mile
2 mile
POTASH AREA P.L.O. No. 1400
Snowden Lawrence
Superior
Exxon
Tex. Int Pet
Lowe-Fed
Dual
Stoltz E. Co. etal
Yates-St.
WC Disc.
Hudson-Fed.
Penzoil
NRM 300010742
Hudson Fed
Richardson Oil
HBU
Gulf
Harris-Fed
Keyes, etal
Keyes
Pioneer D&G
State
Dalco
Meadco Prop.
Cities Serv.
Amoco
Gulf
I-20
62
180

ATTACHMENT C-1

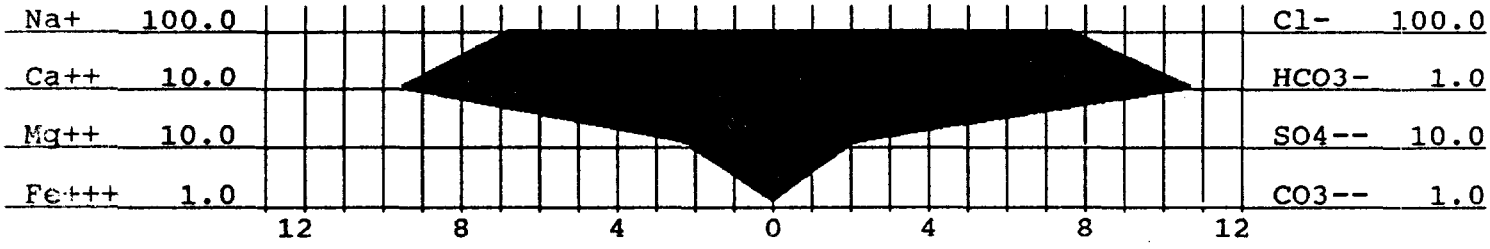
BAKER PERFORMANCE CHEMICALS
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL COMPANY

Date of Analysis:	APRIL 28, 1992	**Analysis #:**	N/D
Company:	BARBER OIL COMPANY	**Company Address:**	CARLSBAD
State:	N.M.	**Field:**	N/D
Lease:	SWD (Stewart Wood #5)	**Well #:**	N/D
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	PRODUCED	**Temp.,C:**	29.15
Sample Source:	WELL HEAD	**Date of Sampling:**	APRIL 24, 1992
Representative:	STEVE STROUD	**Analysis By:**	JEFF EMERSON

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	120.00	
Calcium, (Ca++) :	98.00	1964.72
Magnesium, (Mg++):	22.00	267.33
Iron, (Fe+++) :	0.00	0.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	701.66	16138.17
Manganese, (Mn++):	0.00	0.00
ANIONS		
Chloride, Cl- :	788.73	27998.93
Sulfate, SO4-- :	20.29	975.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate,HCO3-:	11.00	671.14
Hydroxyl,OH- :	0.00	0.00
Sulfide, S-- :	1.64	26.32
TOTAL SOLIDS (quant.):		48041.61

DISSOLVED GASES

Hydrogen sulfide:	157.00	mg/l
Carbon dioxide :	150.48	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	6.25
Spec Grav. :	1.040
TDS (calc.) :	48027.94

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
25.0	-0.37	3650	0
45.0	0.08	3929	0
65.0	0.67	3612	1
Max entity, (calc.)		1401	0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.
@20'C...SLIGHTLY CORROSIVE.

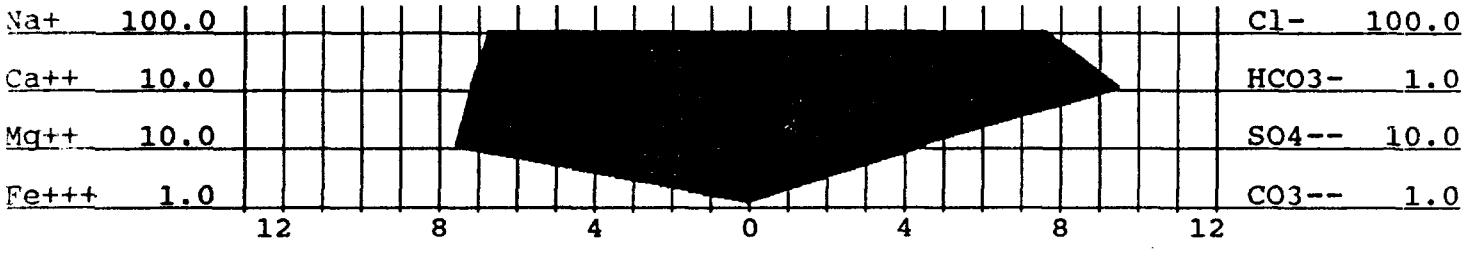
C-2

BAKER OIL TREATING
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL CO.

Date of Analysis:	JULY 9, 1992	**Analysis #:**	1593
Company:	BARBER OIL CO.	**Company Address:**	CARLSBAD
State:	NEW MEXICO	**Field:**	N/D
Lease:	STOVALL-WOODS #1	**Well #:**	#1
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	PRODUCED	**Temp.,C:**	20
Sample Source:	WELLHEAD	**Date of Sampling:**	JULY 6, 1992
Representative:	STEVE STROUD	**Analysis By:**	CLYDE WILHOIT

WATER ANALYSIS PATTERN
(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	152.00	
Calcium, (Ca++) :	74.00	1483.56
Magnesium, (Mg++):	78.00	947.81
Iron, (Fe+++) :	0.05	1.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	694.86	15981.75
Manganese, (Mn++):	0.00	0.00
ANIONS		
Chloride, Cl- :	788.73	27998.93
Sulfate, SO4-- :	46.82	2250.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate,HCO3-:	9.80	597.93
Hydroxyl,OH- :	0.00	0.00
Sulfide, S-- :	1.56	25.04
TOTAL SOLIDS (quant.):		49286.02

DISSOLVED GASES

Hydrogen sulfide:	100.00	mg/l
Carbon dioxide :	186.12	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	6.45
Spec Grav. :	1.030
TDS (calc.) :	49272.34

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
20.0	-0.44	5007	0
30.0	-0.25	5170	0
40.0	-0.03	5330	0
Max entity, (calc.)	3234		0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20 C SLIGHTLY CORROSIVE

@20 C CALCIUM SULFATE SCALING IS UNLIKELY

C-3

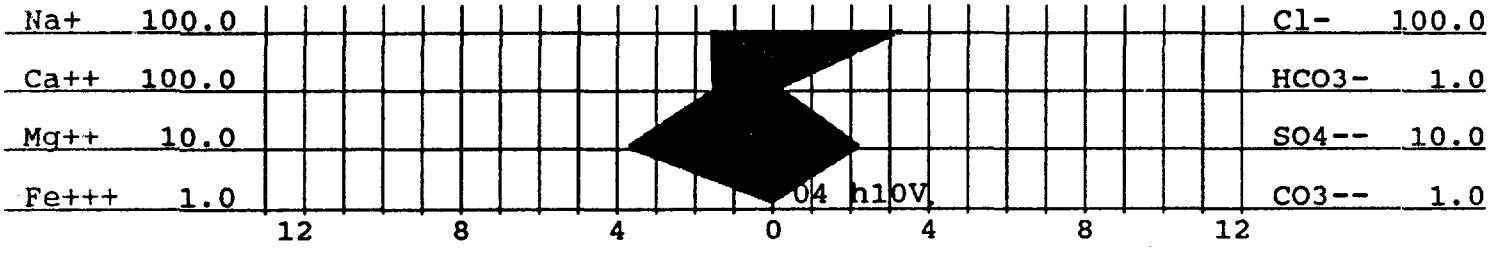
BAKER PERFORMANCE CHEMICALS
A Baker Hughes company

WATER ANALYSIS
for
BARBER OIL COMPANY

Date of Analysis:	APRIL 28, 1994	**Analysis #:**	N/D
Company:	BARBER OIL COMPANY	**Company Address:**	CARLSBAD
State:	N.M.	**Field:**	N/D
Lease:	POND WATER	**Well #:**	N/D
Oil (bbl/day):	N/D	**Water (bbl/day):**	N/D
Type of Water:	FRESH WATER	**Temp.,C:**	27.50
Sample Source:	SURFACE	**Date of Sampling:**	APRIL 24, 1994
Representative:	STEVE STROUD	**Analysis By:**	JEFF EMERSON

WATER ANALYSIS PATTERN

(number beside ion symbol indicates me/l scale unit)



DISSOLVED SOLIDS

CATIONS	me/l	mg/l
Total Hardness :	198.00	
Calcium, (Ca++) :	160.00	3207.70
Magnesium, (Mg++):	38.00	461.75
Iron, (Fe+++) :	0.00	0.00
Barium, (Ba++) :	N/D	N/D
Sodium, Na+(calc):	165.53	3807.21
Manganese, (Mn++):	0.00	0.00
ANIONS		
Chloride, Cl- :	340.34	12081.65
Sulfate, SO4-- :	22.89	1100.00
Carbonate, CO3-- :	0.00	0.00
Bicarbonate,HCO3-:	0.30	18.30
Hydroxyl,OH- :	0.00	0.00
Sulfide, S-- :	0.00	0.00
TOTAL SOLIDS (quant.):		20676.61

DISSOLVED GASES

Hydrogen sulfide:	0.00	mg/l
Carbon dioxide :	0.00	mg/l
Oxygen :	N/D	mg/l

PHYSICAL PROPERTIES

pH :	8.05
Spec Grav. :	1.020
TDS (calc.) :	20676.92

SCALE STABILITIES

Temp.,C	CaCO3	CaSO4	BaSO4
25.0	0.23	1880	0
45.0	0.68	2020	0
65.0	1.27	1907	0
Max entity, (calc.)	1567		0

RESIDUAL HYDROCARBONS: N/D

N/D = not determined

@20'C...CALCIUM SULFATE SCALING IS UNLIKELY.
@20'C...SLIGHTLY CORROSIVE, AND SLIGHT CARBONATE SCALING.

BARBER OIL, INC.
111 West Mermod
Post Office Box 1658
CARLSBAD, NEW MEXICO 88220
(505) 887-2566

May 18, 1993

Snyder Ranches
P. O. Box 2158
Hobbs, NM 88241

Attn: Mr. Larry Squires

CERTIFIED - Return Receipt Requested
Item No. P 603 313 683

Dear Mr. Squires:

Please find enclosed a copy of Form C-108 (Application for Authority to Inject) on Barber's Stovall-Wood #5 located in Unit C of Section 20, T20S-R30E, Eddy County, New Mexico.

Should you have any questions, please feel free to contact me at (505) 887-2566.

Sincerely,

Michael D. Carringer
President

Enclosure

ATTACHMENT "D"

№ 14321

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

E. C. Cantwell, being first duly sworn, on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

MAY 20 , 19 93

, 19 ____

, 19 ____

, 19 ____

that the cost of publication is $ 21.00, and that payment thereof has been made and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this 20 day of MAY, 19 93

Linda D Martin

My commission expires 7/22/96

Notary Public

May 20, 1993

LEGAL NOTICE

Barber Oil Inc., P. O. Box 1656, 111 W. Mermod, Carlsbad, NM 88221, has filed form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for an injection well. The well, known as the "Stovall-Wood #5" located 880' FNL and 1580' FWL of Section 20, Township 20 South, Range 30 East, Eddy County, New Mexico, will be used for saltwater disposal only. Disposal waters from the Yates-Seven Rivers will be injected into the Rustler formation at a depth of 195'-255' at a rate of 5,000 BWPD on vacuum.

All interested parties opposing the aforementioned must file objections or requests for a hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days. Additional information may be obtained by contacting Mike Garringer at (505) 887-2586.

Attachment "E"

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF BARBER OIL INC. FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO

CASE NO. 10772

REPORTER'S TRANSCRIPT OF PROCEEDINGS
EXAMINER HEARING

BEFORE: Michael E. Stogner, Hearing Examiner

November 4, 1993

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on November 4, 1993, at the Oil Conservation Division Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Lisa Danner-Suggs, Certified Court Reporter No. 257, for the State of New Mexico.

ORIGINAL

DEC

I N D E X

November 4, 1993
Examiner Hearing
CASE NO. 10772

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A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
General Counsel
Oil Conservation Commission
State Land Office Building
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

FOR THE APPLICANT: CAMPBELL, CARR, BERGE, & SHERIDAN
Post Office Box 2208
Santa Fe, New Mexico 87504-2208
BY: WILLIAM F. CARR, ESQ.

FOR THE OPPONENT: KELLAHIN AND KELLAHIN
Post Office Box 2265
Santa Fe, New Mexico 87504-2265
BY: W. THOMAS KELLAHIN, ESQ.

EXAMINER STOGNER: I'm Michael E. Stogner. I'm appointed hearing officer to hear this case. At this time, I'll call case No. 10772.

MR. STOVALL: Application of Barber Oil Inc. for salt water disposal, Eddy County, New Mexico.

EXAMINER STOGNER: At this time, I'll call for appearances.

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge & Sheridan. We represent Barber Oil Inc., and I have one witness.

EXAMINER STOGNER: Any other appearances?

MR. KELLAHIN: Tom Kellahin of the Santa Fe law firm of Kellahin and Kellahin, appearing today on behalf of Snyder Ranches Inc. I have two witnesses to be sworn.

EXAMINER STOGNER: Will all three witnesses please stand to be sworn? (Witnesses sworn.)

EXAMINER STOGNER: If there's no proceedings or anything that needs to come forward at this time, you may continue, Mr. Carr.

MR. CARR: May it please the Examiner, at this time we call Mr. Michael Garringer.

EXAMINER STOGNER: Go ahead, Mr. Carr.

....

MICHAEL GARRINGER

The witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. CARR:

Q. Would you state your name for the record, please?

A. Michael D. Garringer.

Q. Mr. Garringer, where do you reside?

A. In Carlsbad, New Mexico.

Q. By whom are you employed?

A. Barber Oil Incorporated.

Q. And what is your present position with Barber Oil?

A. I'm the president of the company.

Q. Have you previously testified before the Oil Conservation Division?

A. No, I have not.

Q. Could you review for the Examiner your experience with the oil and gas industry? When did you first start to work with this?

A. I started actually in high school working with Barber Oil, as a matter of fact, and continued off and on while I was going to college during the spring breaks and Christmas vacations and some other vacations.

In January of 1977 I went to work for the company full-time, and I've been employed by the company since then.

Q. You don't have a degree as either a geologist or a petroleum engineer?

A. No.

Q. How long have you been familiar with the Stovall-Wood No. 5 disposal well?

A. Well, since I worked out the lease, since high school, which was 22 years.

Q. Are you the person currently with Barber who's responsible for all of Barber's operations in the area?

A. Yes. I oversee the day-to-day operations. All the production people report to me. In fact, I'm the one who prepared the C-108 and executed it on behalf of the corporation.

Q. So you're familiar with the application?

A. Yes, I am.

Q. You're familiar with the producing wells in the area that are operated by Barber?

A. Yes, I am.

Q. And you're familiar with this disposal well?

A. Yes, I am.

MR. CARR: Are the witness's qualifications

acceptable?

EXAMINER STOGNER: Are there any objections?

MR. KELLAHIN: Is the witness being tendered as an expert in any particular area?

MR. CARR: No. He is the practical oil man and president of Barber Oil.

MR. KELLAHIN: No objection.

MR. STOVALL: Given that tender, we'll be watching if there is opinion to be tendered which would qualify as expert opinion. You'll need to insure that his practical oil man experience makes him --

MR. CARR: Qualifies him to do that?

MR. STOVALL: Yes. I'd also, for the record, like to indicate that the Stovall-Wood Well is in no way related to any member of the family of the Division attorney.

EXAMINER STOGNER: Mr. Garringer is recognized as the president of the Barber Oil company and his credentials are accepted.

Q. (BY MR. CARR) Mr. Garringer, would you briefly state what Barber seeks with this application?

A. We would like to get a current permit on the Stovall-Wood No. 5. We feel that the well has been authorized for a number of years. It's our understanding that the Environmental Protection Agency,

in an overview with the OCD, came across the fact that the OCD did not have a permit on file.

And the OCD wrote us a letter indicating that this was the case and asked us to file a C-108 within 30 days. We agreed to do that. We did it. And that's why we're here to get permission for the well.

Q. When was the Stovall-Wood No. 5 drilled?

A. 1943.

Q. Who drilled the well?

A. Well, Barber -- well, actually, it was drilled by Neil H. Wills who is the founder of Barber Oil Incorporated. Barber Oil was not actually incorporated until 1958.

Q. So it was drilled by Barber's predecessor?

A. Right.

Q. And there has been no intervening operator? It's either the predecessor or Barber?

A. That's right.

Q. For what purpose was this well actually drilled?

A. For the disposal of produced water.

Q. Could you advise Mr. Stogner what volumes have actually been injected in this well since 1943?

A. Back in those days, Barber produced a lot more water and a lot more oil, up to 150,000 barrels a

month. Currently we're producing somewhere in the area of between 50 and 60 thousand barrels a month.

Q. And these volumes have been disposed of in this particular well?

A. Yes.

Q. These volumes have been reported to appropriate government agencies?

A. Yes.

Q. How are they reported?

A. They're reported several ways, on a C-115, which is a monthly report of operations on all leases that involve state or fee lands, and a 9361 which is a report we file with the federal government, Bureau Of Land Management that involve federal lands. And there are federal and state and fee lands involved in this production.

Q. Mr. Garringer, are there surface waters in this area?

A. There are surface waters in the area, yes.

Q. About what depth to your understanding?

A. Somewhere, I'd say, within ten and 70 feet.

Q. In your opinion, was the well previously approved for use as a disposal well?

A. Yes. We feel it was, yes.

Q. Have you been able to find any documentation

of that approval?

A. We submitted in -- we found a C-108, actually, that was filed in 1968, signed by Robert S. Light who was president of Barber Oil at the time. It indicated -- it's not quite as elaborate a form as the C-108 is today, but it was a complete form indicating when the well was drilled and what it was used for.

Q. Are you aware of anything in the Oil Conservation Division files that would indicate that in fact this C-108 was ever acted upon?

A. No. As a matter of fact, they have indicated to us that they do not have that application. They cannot find it.

Q. In 1968 there was certain correspondence from the OCD concerning the well. Are you familiar with that?

A. At what time?

Q. 1968.

A. Yes. A letter from Mr. Porter.

Q. In '68 from Mr. Stamets?

A. From Dick Stamets?

Q. Are you familiar with that?

A. Yes, I am.

Q. Could you discuss for the Examiner the circumstances surrounding that correspondence?

A. Yes. We had an inquiry from the Bureau of Land Management about how we were disposing of our water. We indicated -- we told them how we did it.

They wanted some verification as to whether the state was approving this well. And we called the OCD and asked them to write a letter to Mr. Novosad indicating what their opinion was about the well. And that's the content of this letter.

Q. And in that letter, Mr. Stamets also requested a tracer survey log you'd run on the well; is that correct?

A. That's correct.

Q. Was that done?

A. Yes, it was.

Q. What did that show?

A. It showed a water loss interval at between 50 and 60 feet.

Q. When you discovered this, what did Barber do?

A. We had about the same time been experiencing some problems with the water disposal well. It had been backing up on us occasionally. We ran some six-inch PVC pipe in the well at approximately 80 feet, and it seemed to solve the problem.

Q. What do you mean when you say "it seemed to solve the problem"?

A. When we ran the pipe in, the water that was in the well bore disappeared.

Q. When were you next contacted by the Oil Conservation Division concerning this well?

A. We have had numerous conversations with the OCD over the years. And I wouldn't know exactly the exact date of the next communication with it. But the next time we had any significant communication about this well was in late 1990, early 1991.

Q. And who contacted you, or how did this come about?

A. I assume, I don't know this for a fact, but I would assume that OCD does regular lease inspections. They go around and check leases and check for a number of different things.

And I would assume, at that time, that they found the six-inch PVC pipe in the well. And Mr. Williams, Mr. Mike Williams with the OCD in Artesia, asked us to run some steel casing in cement rather than PVC pipe. That was in late 1990, early 1991.

Q. What did you do in response to this communication?

A. We called the people necessary to do that. When we pulled the six-inch PVC pipe, we ran a drilling rig to 244 feet, circulated some cement, and followed up

the hole, sealing off all the water zones, what water zones we thought were there. It took a huge amount of cement to do that.

Q. Did you run additional casing in the well?

A. Well, in addition to the old 8-5/8 which was there originally, we ran new 7-inch casing in the well and cemented it to the surface.

Q. Was this work reviewed by Mr. Williams?

A. Mr. Williams was actually pretty much the architect of the way the well was put together. What we were trying to do was do exactly what the OCD asked us to do so we wouldn't have any problems with the well in the future.

Q. Have you had any problems or any reason to question the integrity of the well bore since that time?

A. No, not at all. It's been functioning perfectly.

Q. Following that work on the well in 1991, did you receive any communication concerning the remedial work from the OCD?

A. Yes. And this is from my recollection. We received a letter. And I cannot remember if we asked for the letter or if it was just sent to us after the work was done.

I believe what happened was, Mr. Williams

came up here and met with the state OCD officials. And a letter was written to us indicating that the well was approved for disposal.

Q. And then we're here today, as you indicated, because of recent inspections and a request from the OCD that Barber file a new C-108?

A. That's correct.

Q. Could you identify what has been marked as Barber Exhibit No. 1, please?

A. This is the application for authorization to inject, a form C-108.

Q. This was prepared by you?

A. This was prepared by me.

Q. And current status of the well is what?

A. It is currently disposing of water.

Q. All right. Let's go to page seven of this exhibit. Could you identify what is on page seven?

A. Yes. This is an oil and gas ownership map. There are two circles. One is a -- the inner circle is the half-mile circle area of review that's referred to in the application.

Q. And then the other circle shows -- that's a two-mile?

A. That's a two-mile circle, yes, sir.

Q. This plat also shows the lease-hold ownership

in the area?

A. Yes, sir.

Q. How close is this injection well to the potash mines in the area?

A. They're about a mile, maybe a little less than a mile to the north of Barber.

Q. And there are disposal ponds at those?

A. There are disposal ponds in front of the potash mine and a potash tailings mountain, I guess is what you'd call it, to the west of the potash mine.

Q. When you say the mine is about a mile to the north, you mean the surface facilities?

A. The surface facilities are about a mile to the north. The mine actually is all around Barber, underneath Barber, underneath the ground where Barber's wells are, there's mining all in that area.

Q. Attached to, or with the C-108 is what has been marked as Exhibit No. 2. Could you identify that, please?

A. Is the --

Q. Plugging diagrams?

A. Yes. These are schematics for five wells in the area of review that are plugged wells.

Q. Are these all the wells in the area of review that are plugged?

A. These are all the wells in the area that are plugged and abandoned, yes.

Q. Do these schematics show all of the current plugging detail?

A. Yes. Let me qualify that a little bit. On page three and four of the exhibit are two wells that we recently submitted for replugging on behalf of Eddy Potash which is the potash mine that's just north of Barber.

I have not gotten a file report on that yet. So I don't know exactly what was done there. But what was shown on this is what was proposed to be done.

Q. And the actual plugging detail?

A. The actual plugging detail should be with the OCD in the next ten or 15 days.

Q. There's been a replugging on two of those wells?

A. Yes, sir.

Q. Who initiated that, do you know?

A. Eddy Potash.

Q. Let's go to page No. six in Exhibit 1. Could you identify this, please?

A. This is a well schematic on the disposal well, Stovall-Wood No. 5.

Q. What does this show? Basically review the

current configuration of this well.

A. There was originally approximately 195 feet of 8-5/8, 24-pound casing. That's what's shown extending to the depth of the well. We ran in 7-inch, 26-pound pipe and set it at 114 feet and cemented it to the surface.

We then ran 5-1/2 inch casing to 90.6 feet, set it on arrow-type SL packer, 5-1/2 by 7-inch packer, and filled the annulus between the tubing and the casing with packer fluid provided by Baker Chemicals.

The reason we fill the annulus with packer fluid is for a couple reasons. One, it helps protect the integrity of the tubing. And another reason is because if we were to develop a hole in the tubing, the packer fluid would disappear, and we'd know that, and we could solve the problem.

Q. So this shows the well as it is today?

A. That's true.

Q. And to what formation are you actually injecting?

A. This is called the Rustler formation.

Q. What interval are you injecting?

A. We're injecting at 195 feet -- from approximately 195 feet to 240 feet.

Q. Let me hand you what has been marked as

Barber Oil Exhibit No. 3. Can you identify this for me?

A. Yes. This is a tabular data on all of the wells within the area of review including the producing wells and the plugged wells.

Q. This contains the information contained or required by subparagraph six of form C-108?

A. That's correct.

Q. What is the source of the water that you are injecting in the Stovall-Wood No. 5 well?

A. That comes from nine producing wells in the Barber field -- the Barber pool. There are three state wells, three fee wells and three federal wells. And they all go into a common tank battery. And the water is skimmed off and put down the disposal well. It's all produced water.

Q. From what formation is this water being produced?

A. It's being produced by the Seven Rivers primarily. There's a little bit of Yates production in the area, but most is Seven Rivers.

Q. What volumes are you proposing to inject or are you injecting at this time?

A. We're injecting approximately 5,000 barrels a day. Production can vary depending on -- this is a natural water drive, so it can vary up to 6500 barrels a

day.

Q. Would 6500 barrels of water a day be a maximum volume?

A. That would be the most -- probably the most we'd ever --

Q. Is this an open or closed system?

A. This is a closed system.

Q. Are you injecting under pressure, or does the well take the water by gravity?

A. The well takes the water by gravity, the rest of the formation does.

Q. Let's go back to Exhibit No. 1. And I would direct your attention to what we have marked as page eight of this exhibit. Could you identify this for the Examiner, please?

A. Yes, sir. This is a chemical analysis on water being put in the injection well. This is the Stovall-Wood salt water disposal well No. 5.

Q. Basically, what does this show?

A. It breaks down dissolved solids and dissolved gases and gives the physical properties in the water so that you know what you're putting in the ground.

Q. Okay. Behind that, we have another water analysis; what is this?

A. That's from a producing well, the

Stovall-Woods Well No. 1. Again, it's the same thing. It just breaks down the produced water.

Q. How do the analyses on pages eight and nine compare?

A. Well, they're very similar. Actually, if you look at calcium, at sodium, at chlorides, at total dissolved solids, at pHs, all of them are very similar in both of these, in both the disposed water and the produced water.

Q. Let's go to page ten of this exhibit. What is this?

A. This is a water analysis of pond -- what we call pond. I don't know what Mr. Squires calls it. There's a pond that's about 200 yards, maybe 150 yards from the disposal well. It stays -- it has water in it constantly. We took a sample from the pond's water and had it analyzed. That's what this shows.

Q. And why did you do that?

A. Well, I guess primarily we wanted to show that we didn't feel that our disposed water was the same water that was in the pond.

Q. And how does this water analysis compare with the prior two?

A. Well, it's very different actually. Again, if you look at the calcium, the sodium, the chlorides,

the total dissolved solids, the pH, all of the scales, stability tests that they run, they're very, very different waters.

Q. Have you experienced any problems with the compatibilities of the water as you've been injecting them in the Stovall well?

A. No. No. We've had no problem with compatibility.

Q. Now, you've indicated there was groundwater in the area. To your knowledge, are there any fresh water zones in the area?

A. No, sir.

Q. Are there any fresh water wells within a mile of the proposed injection well?

A. No, sir.

Q. How have you determined that?

A. Well, many years ago, we used to use -- we had employees who lived out there. We still have employees that live out there. And going back to the early 1950s, in fact, one of my employees worked for Mr. Squires, or his father did, I should say.

And at that time, going back to the early 1950s, the water was not any good at that time. So we just assumed that the water would still not be any good.

Q. Now, as to any fresh water wells in the area,

how have you established that there are no wells? Have you checked the records in the state engineer's office?

A. Yes, we have.

Q. Is there any indication of fresh water wells within a mile of the area?

A. No, sir, there's no fresh water wells in the area.

Q. Has the injection well, to your knowledge, ever been logged?

A. No, sir, it was not logged to my knowledge.

Q. So there is no log available on that?

A. No, sir, there wouldn't be any logs available.

Q. If we go back to Exhibit 1 and look at pages eleven and twelve, can you tell me what was shown on those pages?

A. Yes, sir. This is a letter to Mr. Squires indicating that we had filed the application and notifying him of how to protest the notification.

And the second page, page twelve that you referred to, is a photocopy of a legal notice that was placed in the Carlsbad Current-Argus.

Q. Mr. Garringer, if the Division should decide not to grant a permit for continued injection on this well, what impact would that have on the Barber

producing wells in that area?

A. Well, they'd have to be shut in, frankly.

Q. Is there any alternative disposal?

A. There are no other disposal wells in that area. And to dispose of it on the surface, which -- this volume of water would be -- it would be absolutely impractical to put it on the ground.

Q. In your opinion, would granting this application result in an efficient, effective way to dispose of these produced waters?

A. Absolutely. It is the only way.

Q. Will it result in the production of hydrocarbons that otherwise could not be economically produced?

A. That is accurate.

Q. Would the correlative rights of any interest owner be impaired?

A. By --

Q. By the continued injection in this well?

A. No, sir.

Q. Were Exhibits 1 through 3 either prepared by you or compiled by you?

A. Yes, sir, they were.

MR. CARR: At this time, Mr. Stogner, we would move the admission of Barber Exhibits 1 through 3.

EXAMINER STOGNER: Are there any objections?

MR. KELLAHIN: No objections.

EXAMINER STOGNER: Exhibits 1 through 3 will be admitted into evidence at this time.

MR. CARR: That concludes my direct examination of Mr. Garringer.

EXAMINER STOGNER: Mr. Kellahin, your witness.

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Garringer, does your office maintain production records for the nine producing oil wells that generate this associated produced water that you're putting into the disposal well?

A. Yes, sir.

Q. Do those records track from inception the volume of oil produced from each of these wells?

A. Yes, sir.

Q. Historically, do your records show that water has always been produced in association with the oil production?

A. Yes, sir.

Q. Do your records show the volume of water produced in association with this oil?

A. Yes, sir.

Q. Can you calculate for us the total volume of water produced from the nine producing wells that has thereby been disposed of over the life of the disposal well?

A. I do not have that figure with me.

Q. But that is a number you could generate out of your records?

A. That is a number that could be generated out of OCD records, C-115s.

Q. Okay. Do you have knowledge or an estimate of what you consider to be the total volume of produced water put into this injection well?

A. No, sir. I don't have knowledge of that. Again, I would be glad to provide that, if that's necessary for the Division. I would be glad to provide that for them. They have that figure. I don't know.

MR. KELLAHIN: We would request that Barber Oil provide that information to the opponent as well as the Division Examiner, Mr. Stogner.

EXAMINER STOGNER: Mr. Carr, I'd like to see that information too. If you could, subsequent to today's hearing.

MR. CARR: Mr. Stogner, we'd be glad to provide that to you.

EXAMINER STOGNER: Thank you.

Q. (BY MR. KELLAHIN) So I don't confuse you and myself on my choice of words to identify these areas, your disposal well is the Stovall-Wood No. --

A. No. 5.

Q. No. 5. I'll just simply call that the disposal well?

A. Yes, sir, that's right.

Q. The ranch pond that you referred to a while ago, I've come to know it as the Wood Ranch Pond.

A. That would be -- the Woods are the people who actually owned it, all the surface land, prior to that.

Q. The Woods' Pond, then, is what I will discuss with you when we talk about that pond near the disposal facilities that collects and holds water.

A. Yes, sir.

Q. Okay. When we go north of that and look at the Eddy Potash Mine, there's a brine lake up there?

A. Yes, sir.

Q. I'm going to call that the brine lake.

A. Okay.

Q. The disposal well was drilled in '43?

A. Yes, sir.

Q. Can you tell me the construction or the configuration of that well from the information you have?

A. Yes, sir. We set 8-5/8 at 195 feet. I do not recall off the top of my head what the cement was at that time. And I'm not sure that our records indicate how much cement was put in the well at that time.

Q. We cannot now reconstruct whether or not there is a total column of cement from surface to the injection well interval in the original well?

A. In the original well, we cannot. That information is lost.

Q. 8-5/8 casing was used in the well?

A. Yes, sir.

Q. The method of disposal, then, was to introduce water into an open hole interval commencing at 195 feet simply by putting it down the casing?

A. Yes, sir, essentially.

Q. No tubing, no packer assembly?

A. There may have been tubing at one time. But not since I've been there.

Q. The well, then, is an injection well from '43? Was it drilled as an injection well?

A. Yes, sir.

Q. From '43, how long do we go with the well in the configuration where you're utilizing -- or Barber is utilizing -- casing as the component that separates the injection fluids from the formations?

A. I would say from inception, 1943, until we fixed the well in 1991.

Q. I have lost track of the point in time in which the six-inch PVC pipe was put into the well.

A. That was approximately 1986.

Q. So the well is configured with casing from '43 to '86?

A. Configured with steel casing, yes, sir.

Q. In '86 then, there is a change that takes place?

A. Right. We ran some six-inch PVC pipe in the well.

Q. 1986?

A. Yes, sir.

Q. From '43 to '86 did Barber have in place any type of monitoring program to monitor the injection well?

A. I'm not sure I understand what you mean by "monitoring".

Q. To check the mechanical integrity of that well.

A. I don't know. I don't think so. I mean, I wouldn't know what it would be unless the well was not functioning properly.

Q. In '86, the six-inch PVC tubing, if you will,

is it put in the well?

A. That's correct.

Q. Can you tell us how that was done?

A. Yes. It was simply put -- I don't know how much you know about PVC pipe, but --

Q. I can do a sprinkler system.

A. It's very similar. Only it's larger. There are collars, and rather than glue the collars together, we just attached the collars and dropped it down the hole.

Q. Was this set up in such a way that you could fill the space between the outside of the PVC tubing and the casing with any type of inert fluid?

A. Well, I suppose you could have. We did not, but I suppose you could have.

Q. Is the PVC anchored in casing in such a way that there is the equivalent of a packer that would isolate the PVC tubing so the injection fluid goes down the tubing and into the open hole interval?

A. I can't answer that, Mr. Kellahin, except to say that once we did get the pipe down, there was evidently some kind of either natural seal when the pipe went down that caused the surface water to be shut off because the water began an immediate vacuum into the Rustler formation.

Q. Go back and fill in the blank for me. In '86, what caused the problem that led you to introducing the six-inch PVC pipe into the injection well?

A. We felt like -- a couple things happened. First of all, we were having a little trouble with the well taking the water. And when the OCD did this lease inspection, they did not like the -- they don't like PVC pipe either. We argued about this over a period of time back and forth.

But our main concern -- main reason was, we felt like the surface waters were competing with our waters going into the Rustler formation.

Q. Okay. Explain to me how you reached that conclusion.

A. When the surface waters are sealed off, the water that we produce is taken into the formation readily. When we began to have trouble, we knew we had another water source, an additional amount of water going into the well bore that was competing with our water to get into the Rustler formation.

Once that was sealed off, once again, the well took all of our produced water readily.

Q. Did you have any technical people, geologists or engineers to help you identify at what point from the

surface to 195 feet you suspected additional waters were flowing into the injection well?

A. The only indication we had that there was other water coming into the casing was the survey we ran, the Bell Petroleum survey we ran, which indicated a water loss at 50 to 60 feet.

Q. Was that water loss due to a break or a hole in the casing?

A. We subsequently found out it was because of a hole in the casing.

Q. We're still in '86, right?

A. This was in 1991. When we went back in to working the well is when we found it. That was after we were requested to remove the PVC pipe by the OCD is when we found out the pipe was real bad.

Q. You're confusing me with my chronology here. The tracer test was of what vintage?

A. That was done in about 1986.

Q. In '86, at that point in time, you've got a tracer that shows injection fluids leaving the injection well at about 50 feet?

A. No. No. You've misunderstood what I've said. There is a water loss interval. That does not mean that the water is going outside the well into another formation. It may be another formation coming

into the well. It just shows that there is movement of water in that area.

Q. And we found that movement at 50 feet?

A. At 50 to 60 feet, yes, sir.

Q. And so then we put the six-inch PVC liner, if you will, into the well?

A. Right. We felt like that sealed it off, and of course, the well started working properly.

Q. The well -- at that point is there any type of monitoring program established for the mechanical integrity of the well from '86 onward?

A. No, sir. Other than the fact that -- other than knowing whether the well was working properly or not.

Q. The next event with regard to the injection well, was June of '90?

A. The latter part of 1990, yes, when the OCD came in and said they didn't want us to leave the PVC pipe in there, and they wanted us to cement some pipe in.

Q. Help me understand the two different events, the one in '90, and then there's another event in '91?

A. Well, actually, the event in '90 led to the event in '91. When Mike Williams requested that we rework the well, we did it in -- we started working on

that well in January of 1991. It just so happens, we were towards the end of the year. So you're talking about two years, but you're only talking about a space of a few months.

Q. Let me show you a couple of OCD forms. Mr. Garringer, I have handed you two Division forms C-10s. If you'll help me mark these, Exhibit 1 will be the one that's dated 7/3/90.

MR. STOVALL: Mr. Kellahin, just for the record, the copy is missing -- I think they're actually forms C-103s.

MR. KELLAHIN: Yes. I'm sorry. They are C-103s.

Q. (BY MR. KELLAHIN) If you'll look at the bottom, there's a date on there.

A. Which one is going to be Exhibit 1?

Q. 7/3/90 is Exhibit 1. And the other one is a 3/31/91 form. Let's just make that No. 2. Let's start with the first exhibit, 7/3/90. I don't want you to read the form to me, but let's use it as a reference.

Mr. Garringer, tell me what's occurring in this period of time in '90 that causes this sundry notice to be filed. What were you planning to do?

A. I'm not sure I remember all this. But as I recall, the OCD had asked us at this time about the PVC

pipe in the well. We told them what we had done. And they asked us to file a report.

And so we filed this report at that time. I don't -- I'm not saying that this occurred in 1990. I think it occurred in 1986. I think it was reported in 1990.

Q. Perhaps that's why I'm confused in the chronology is I needed your explanation as to what point in time Exhibit 1 is actually referring to.

So it's your best recollection that the information on Exhibit 1 is for the activity that took place in '86?

A. That's correct. That's my recollection.

Q. Exhibit Number 2. Let me direct your attention to that one. It says we began work February 18th of '91. And this is where you're removing the six-inch PVC pipe?

A. That's where the OCD requested that we remove the pipe, yes.

Q. Where in this sequence are you made aware of the casing hole at 36 feet?

A. Well, I don't know. I don't know. I don't remember, frankly.

Q. Do you remember that this well had a casing hole at 36 feet?

A. I remember that there was a water loss interval from 50 to 60 feet. I don't remember the hole at 36 feet. But that could be true. I just don't know.

Q. In February of '91, you're doing work outlined by Mike Williams to improve the integrity of the disposal well?

A. Absolutely.

Q. And that's what this --

A. That's what this -- this report is a subsequent report of what we did out at the well to repair the well.

Q. Have there been any other changes or events since this work was completed to the injection well?

A. The only thing we have done is run -- we have now run -- in fact, we just did this recently. We ran some plastic line, 5-1/2-inch pipe, in the well instead of just uncoated 5-1/2-inch pipe as tubing.

Q. Do your records show whether or not the change in the vertical interval that's being used for disposal -- we've talked about 195 feet down to 245, 250 -- has that always been historically the intended injection interval for the well?

A. Well, the Rustler, to my knowledge, has been identified from approximately 195 feet to 415 feet. In

the report that was filed in 1968, Mr. Light indicated that we were injecting from 195 to 207 -- 212 -- something like that.

I don't know why he indicated that 12-foot interval or whatever it was. But he indicated a smaller interval. The actual full -- when we went back into the well and drilled -- when we did the work in 1991, we drilled the well down to 245 feet.

Q. So 195 to 245, that's the interval?

A. Yes, sir.

Q. When did you first start making the C-115 reports to the Division for the water production volumes going into the injection well?

A. Are you talking about -- what form are you talking about now?

Q. I was using your number. The C-115s?

A. The C-115s. As far as I know -- now, I haven't been there forever -- but we have always filed C-115s. There may have been another number for that form.

But I think -- I would imagine that the OCD would have required that from the inception on all state and fee lands.

Q. So regardless of the form number, you believe that Barber is and has reported water volumes disposed

of into this injection well?

A. As long as it was -- if it was requested by the OCD, we filed it.

Q. And is that form filed -- how frequently, sir?

A. That's monthly.

MR. STOVALL: Mr. Kellahin, let's clear something up to make sure that you and he are communicating.

Mr. Garringer, when you're referring to the C-115, you're referring to the production and disposition report; is that correct?

THE WITNESS: Yes, sir, that's correct.

MR. STOVALL: And the C-115s which you filed, which you're referring to having filed, are for the producing wells from which the water was produced; is that correct?

THE WITNESS: That's correct. That's correct.

MR. STOVALL: And by inference you're saying you know which wells produced water and were disposed of into this well, so --

THE WITNESS: Yes, sir.

MR. STOVALL: So therefore, those C-115s to which you referred don't report disposition into this

well, but -- rather disposal into this well -- but rather, production from the other wells, and all of the water from those wells went to this one?

THE WITNESS: Yes, sir. That's correct.

MR. STOVALL: Does that help you, Mr. Kellahin?

MR. KELLAHIN: No. But that's where I was headed.

Q. (BY MR. KELLAHIN) I had thought you were filing two different sets of reporting documents and that you were reporting actual volumes into the injection well.

As I now understand it, what you're doing is reporting produced water from the producing wells?

A. Yes, sir.

Q. And you know that all that water is going into this injection facility?

A. Yes, sir.

Q. That's how we get to whatever that number is?

A. Yes, sir.

Q. You have provided in your C-108, the exhibit, some water analyses?

A. Yes, sir.

Q. Do you have possession of any other water analyses that were conducted?

A. I don't have any with me other than the ones that were attached to the application. We have had numerous water analyses done over the years.

Q. Do any of your water anyalyses include a water analysis on the Wood Ranch water well?

A. Not to my knowledge. You wouldn't normally go to somebody else's water and test their water, other than the fact if there was some question about it and they asked to. Then you might do it.

But no, we didn't -- to my knowledge, we never formed any water analysis on -- you're talking about the windmill at the ranch?

Q. Yes, sir.

A. No. We've never done any water analysis on that, to my knowledge.

Q. Where is the ranch water well, the windmill, in relation to the salt water disposal well?

A. I am not -- frankly, I'm not sure. I don't know that -- that windmill has been up since I've been out there.

Q. Can you approximate for us the distance between the injection well --

A. It can't be more than -- I assume the windmill is somewhere near the houses at the ranch. And if it is, then it can't be more than a few hundred yards

from the disposal well to the windmill maybe, you know, less than a few thousand feet at the most.

Q. When you're looking for reports from the state engineer about reported sources of fresh water -- you have contacted the state engineer, did you, to see what his records show for fresh water sources within the half-mile radius?

A. We have looked for fresh water wells in the area of review, and there were none.

Q. Did you confine that search to simply an inquiry of the state engineer's office as to what their reports showed for fresh water sources?

A. Yes, sir.

Q. You've been out in this area since high school?

A. Yes, sir.

Q. Other than the Wood Ranch domestic windmill --

A. Yes, sir?

Q. Are you aware of any other windmills in this area?

A. No, sir, I'm not.

Q. By having been on the surface, are you aware of any other fresh water wells in this area?

A. No, sir. I'm not aware of any other fresh

water wells.

Q. Have you had a geologist or a hydrologist conduct any type of groundwater study for you in this vicinity?

A. No, sir, we have not.

Q. There's no log on this injection well, is there?

A. No, sir, there is not.

Q. Have you accumulated any geological information concerning the characteristics or the lithology of the materials from the surface to the base of the Rustler?

A. Other than our drilling files, which would show what was from the surface to the total depth of the well. And they would list the different characteristics that they encountered as they drilled through those different levels.

Other than that, we have no other engineering or geographical data.

Q. When you look at Exhibit No. 2, this is the last workover, if you will, of the injection well. Who prepared this? Is this your signature?

A. Yes, sir, that's my signature. I prepared this.

Q. From what did you derive the information by

which to complete the form?

A. A number of sources. One was my personal involvement in being out there and knowing what was going on. The other thing came from invoices, cement records, different companies -- each time a company, for instance, when Halliburton comes out and provides a service, they give you a report on what they did.

And you use that source, you use the sources from Star Tool. You'd use sources from T.R. Well Service. And from all that, you go back and show what you did.

Q. Halfway down the entry, it says -- if you'll follow me -- the line says, "and set another cement plug. Started drilling and lost circulation. "

A. Yes, sir.

Q. You see that?

A. Yes, sir.

Q. Do you know or can you remember approximately where in this process lost circulation occurred?

A. Well, if you'll look above that about three lines, it says we had tagged cement at 40 feet. So where we were having trouble was somewhere between the surface and 40 feet, because we had cement to 40 feet. So if we lost circulation, we lost it somewhere between the surface and 40 feet.

Q. Read on down. It says you reach 104 feet?
A. That was after we started drilling back in again.
Q. So you lost circulation between where now?
A. Between the surface and 40 feet.
Q. It says "p-u-m-e-d"?
A. And that should be "p-u-m-p-e-d". That's my typing. I confess to not being a very good typist.
Q. "Pumped another plug and waited, started drilling, got circulation"?
A. Right.
Q. "Pumped 200 sacks of class C cement, waited and drilled out, lost circulation." You've lost it again?
A. Well, that's the same reference you made to earlier. That's the same lost circulation reference you made earlier.
Q. All right. So what I understand from the form as you've drafted it, this was lost circulation events occurring in the same --
A. Yeah. Mr. Kellahin, if your point is to show that we lost circulation while we were trying to cement the well, we lost circulation several times while we were trying to cement this well. That's a very common occurrence when you're drilling through a water zone.

Q. Can you identify for us the intervals in the drilling at which you lost circulation?

A. Yeah. They were pretty much on this -- we lost circulation at the source -- at the bottom of the well. When we went into the Rustler, we lost circulation. We lost circulation coming back up the hole at this 40-foot level.

And we pumped a lot of cement. In fact, if my memory serves me correct, and I think Mike Williams would remember this well because it was kind of comical at the time.

We called Mike Williams at home on a Sunday morning to get his recommendation for a cementing of this 40-foot surface area so we could get the cement to set up in the area. There was so much water entering into the well bore that we couldn't get the cement to set up.

Q. Have you had anyone, a geologist or hydrologist, conduct for you any type of groundwater investigation of the Wood Ranch pond?

A. No, sir.

Q. From '91, having repaired the well, can you tell me what the average daily or monthly rate of disposal has been?

A. Approximately 5,000 barrels a day.

Q. Do you have a recollection as to whether or not the volume of water has increased over time, decreased over time from the nonproducing wells?

A. From the producing wells?

Q. Yes, sir.

A. We believe it's decreased over time.

Q. The initial rates of water produced on those nine wells -- do you have any recollection as to what --

A. As I said earlier, I believe originally we were producing about 150 thousand barrels of water a month. And we're now producing, we think, between 50 and 60 thousand barrels a month. So you can see it's declined to about a third.

Q. What's the associated oil production for the nine wells? How much oil are you making?

A. We're making about 50 barrels a day.

Q. 50 barrels a day from the nine wells?

A. Yes, sir.

Q. What's your best producing single oil well?

A. Probably the Stovall-Wood 3. Possibly the Stovall-Wood 1 and the State 2.

Q. And what kind of rates on oil do we get for those wells?

A. I don't understand what you mean by rates.

Q. How much oil --

A. Do they make per day?

Q. Yes, sir. Your best oil well?

A. These are commingled wells, and so we don't have any way of knowing what each well individually makes. We can break it down by lease, but we don't break it down by well. We're using historic production. A long time ago we used to do some tests out there.

Q. Is the configuration such that all nine wells are put -- production is put into a common facility?

A. That's correct.

Q. And so we couldn't look at individual wells to see what they would produce now unless we went out there and individually monitored or measured them?

A. Right. You'd have to -- in fact, we've just done that for the state, for the Oil Conservation Division, we've just completed doing that for the three state wells.

Q. And what kind of numbers did you get for an oil rate on those three wells?

A. Well, it's approximately one percent of the water production. Whatever total fluids are produced, about one percent is water -- one percent is oil, excuse me -- and 99 percent of it is water.

Q. You're up to a 99 percent water cut on your

oil?

A. Yes, sir.

Q. Have you made any estimates of what the ultimate remaining oil production is from the nine wells?

A. We were told by Steven's Engineering out of Witchita Falls, Texas, that this production which is now flat, meaning it's no longer declining, would produce long after we're gone.

Q. If the produced water is trucked to another disposal facility, have you examined the economics of that option?

A. Yeah. We'd be out of business on that lease.

Q. Where would the produced water have to be trucked in order to be disposed of?

A. It couldn't be trucked, Mr. Kellahin. Let me explain to you why. A truck holds approximately 180 barrels of water. If you're producing 5,000 barrels of water a day, you couldn't run enough trucks to haul the water off. You couldn't run them if you lined them up one after the other, you couldn't run enough trucks.

Q. Have you examined the cost of deepening the injection well so that it is injecting deeper than 195 feet?

A. We are not allowed to deepen any of the wells

out there. We're not allowed to drill any new wells out there because we are sitting right on top of a potash mine.

If we do anything that invades that potash mine, we have a major liability. So we wouldn't even want to get into drilling any deeper or possibly getting into a potash mine.

Q. Does production from all nine wells come from the same lease?

A. From the same lease?

Q. Yes, sir.

A. No, sir. There are three leases out there. Actually, three or four depending on how you look at it. One is a state lease. State B-2386. There are two assignments under that lease, assignment No. 1 and No. 2.

There is a federal lease called the Colglazier Federal, LC029096C. And then there is a fee lease called the Stovall-Wood fee lease. And those are the three leases that contribute to this problem.

Q. How many wells are on each?

A. Three wells on each lease.

Q. Where is the injection well in relation to the three leases?

A. Almost in the center. It's a little bit on

the western edge of the production. But it's -- the three state wells are north of the injection well. The Colglazier and Stovall-Wood fee wells are east of the injection well.

There are no current producing wells that are west of the injection well. And there are no current producing wells that are directly south, although there are some that are south. If you look at the oil and gas ownership map, you can see there are some south, but they're south and east.

Q. What entity controls the oil and gas lease for the site of the injection well? Is that on a state oil and gas lease?

A. That's on a fee lease. That's the Stovall-Wood fee lease.

Q. Do you have an agreement with the owners of that property for use of this well for injection purposes?

A. Frankly, I don't know. It's possible we do. There was an agreement signed, and I've seen it. It's an old, old document. I don't know what references were made to the construction of facilities for oil production. But there are references to that.

MR. KELLAHIN: Thank you, Mr. Examiner.

EXAMINER STOGNER: Mr. Carr, any redirect?

MR. CARR: No redirect, Mr. Stogner.

EXAMINER STOGNER: Mr. Stovall?

MR. STOVALL: Yeah. I've got a couple of questions.

EXAMINATION

BY MR. STOVALL:

Q. First off, you referred to Exhibit 1, page seven as a lease-hold ownership map; is that correct?

A. Yes, sir, that's what's commonly referred to as an oil and gas ownership map.

Q. For the purpose of giving notice and conducting your area review, did you rely on the ownership depicted on this map?

A. Yes, sir, I did, and on a lot of years of experience in the area.

Q. Who operates the oil and gas leases within the half-mile area?

A. The only oil and gas operator within the half-mile area of review is Barber Oil Incorporated.

Q. Does it operate all of the acreage that is within that half-mile area of review?

A. Yes, sir, it does.

Q. Well, now, let's make sure we're talking -- that we understand each other. Section 17, do you --

A. I see what you're saying. All the acreage

that's in the area of review, the half-mile area that's in section 17, belongs to Barber Oil.

Q. Can we say the same thing about 18, 19 and 20?

A. Same thing about -- well, same thing about 18, same thing about 19, and the same thing about 20, yes.

All of that is Barber's acreage either under the state lease or under the federal lease or under the fee lease.

Q. One leased tract --

A. We do not have any -- we do not have the deep rights, but we have the shallow rights in that area.

Q. There are no unleased tracts up there?

A. Not in this area of review, no, sir. I believe that Amoco has the deep rights if I recall.

Q. And again, you were basing that upon your personal knowledge of the lease-hold situation and not just upon this map, right?

A. Oh, absolutely. I have plotted out our acreage. And there was no one else's acreage -- shallow rights acreage -- in that area.

Q. During your direct testimony, you were talking about a variety of correspondences and things that happened. Do you believe that you have permission

to dispose of water in this well?

A. Absolutely. Yes, sir. We feel like we've been authorized all along.

Q. But you haven't submitted any OCD correspondence documents otherwise that would support that contention; is that correct?

A. Well, the only document that we have that we're relying on is the C-108 that was filed in 1968, as I indicated, was executed by Mr. Light at the request of Mr. Porter, who was with the Oil Conservation Division at the time.

Q. Do you have a copy -- now, I understand that your testimony was that there hasn't been a copy of that located in the OCD records; is that correct?

A. That's what I've been told by the OCD, yes, sir.

Q. Have you made a personal search of the OCD records, yourself, to see if you could find that?

A. Not for that document, no, sir, I have not. I have been through all the well files on that lease.

Q. You say you have a copy of that document?

A. Yes, sir, I do. I'd be glad to provide you with it.

Q. Does it show an approval by Mr. Porter or anybody from the OCD?

A. Let me look at it just a minute and see.

THE WITNESS: Bill, which one is that?

MR. CARR: Mr. Stovall, we have a copy from Barber's file, and I can make additional copies of it. It is signed by Bob Light. It is a prior form C-108, but it does not show approval.

MR. STOVALL: Does it show receipt by the OCD?

MR. CARR: No, it does not. There are letters from Mr. Porter concerning the application and that it should be filed and that they'll be happy to review it -- he will, with the Artesia office.

But there's nothing here that shows that it was received. And what it is, it's Mr. Light's working papers. They're in his handwriting, also, one typed copy, that is a carbon copy. And that is the only thing we've been able to recover from his files.

MR. STOVALL: So we don't have anything that shows that, in fact, this form was, in fact, filed with the Oil Conservation Division?

MR. CARR: No, we do not.

MR. STOVALL: So there's no evidence there that there is a permit?

MR. CARR: No, there is not.

MR. STOVALL: Is there any other evidence

that at any time the Division authorized injection into this well?

MR. CARR: Mr. Stovall, I would direct your attention, if I can find it, to recent correspondence from the Division. And there is a letter dated May 12, 1993. It's the letter that, in fact, directed Barber Oil to come forward with the C-108 application. I'll be happy to make copies of this available. I got it from Mr. Catanach. I'll be happy to make copies of it.

MR. STOVALL: It's dated which date?

MR. CARR: May 12, 1993. If we go to the first paragraph, all we can find -- and I mean, we've gone through our files, Mr. Stovall, and this is what we came up with.

The first paragraph says, "While conducting routine field reviews, EPA discovered that the Barber Oil Inc. Stovall-Wood salt water disposal well located in Unit C of Section 20, Township 20 South, Range 30 East in Eddy County, New Mexico was not authorized by permit" -- underscored "permit" -- "to inject."

It then went on to state in the second paragraph --

MR. STOVALL: Mr. Carr, I've got a copy of that.

MR. CARR: In the second paragraph, Mr.

Stovall, if you'll note, references an August 22, 1991 letter. It says, "In light of the fact that the Division, by letter dated August 22, 1991, authorized the continued use of this well for disposal purposes" -- We can't, frankly, Mr. Stovall, find an August 22, 1991 letter. And we've looked.

But we admit -- we're not asserting to you today that we have a permit. We did -- and I think the testimony is that we felt we were authorized. And so we're here today hoping to obtain a permit pursuant to these directives from the OCD.

But we're not asserting that we have a permit. Those are the only documents we found that address that point.

Q. (BY MR. STOVALL) I've got a little confusion which I share with Mr. Kellahin with regard to Snyder's Exhibit No. 1. That's the June -- July 1990 sundry?

A. Yes, sir.

Q. About the fifth line down, it says, "In June of 1990 we began experiencing trouble with the well backflowing very slight amounts of water."

Now, I believe your testimony was that this was describing work that was done in 1986?

A. Yes, sir.

Q. But it references June of 1990?

A. Yes, sir. I cannot explain that to you. I do know that the problems occurred in '86. We were asked by the OCD to file this report on the work we did in '86. And we did. And it's dated the date in 1990. So I know it was some time after we did the work that we actually filed the report. It was an error on our part, no question about it.

Q. Well, I guess what I'm questioning is, how can we be sure that you didn't have a problem in 1990 as well as in 1986, just relying on your memory?

A. Right. I can just tell you this: With PVC, you don't have the corrosion problems, etc., and that's where we had a problem in the original well.

Q. Well, that brings me to the next question. I think Mr. Kellahin made reference to laying a sprinkler system, which is probably not an inapt analogy. And I've done that too.

When I put down a sprinkler system, I put down the PVC pipe, and I cement it together with the plastic goop you find in the store. I look at it, and I find out if I've got leaks in that pipe, in my joints, or if I've done anything. Were you able to conduct that kind of determination?

A. No, sir. Other than the fact that we did pull the pipe up a couple of times to look at it.

Q. Did you put any water in it at that time or pressure it up in any way?

A. When we put it in the ground originally?

Q. When you pulled it up and looked at it. If I'm not mistaken, to make it real simple, the only way you could tell if you had a leak is, you do one of two things: You pressure up the pipe and find out if you're losing the pressure, or you look at it and watch the water leak out of it.

A. Right.

Q. Were you able to do either of those things?

A. No, we did not pressure up the well.

Q. So we don't know that maybe there could have been a leak in the pipe in '90?

A. Right. Let me qualify what I just said. If there had been a leak, we would not -- the gravity vacuum system that works with the Rustler formation would have had a leak in it also, and would have lost our vacuum taking the water down.

And that's the way we've always been able to tell whether this well was working properly or not. When we did put the PVC pipe in to vacuum it back, the water disappeared.

Q. Couldn't there be degrees of that?

A. I assume there is. I don't know. I assume

there would be.

Q. Different topic: We have talked about the different leases, let's just cover this while we're there. You've got several leases out there, I assume that some of them -- is it 40-acre spacing out there, these oil wells?

A. Yes, sir. Normal 40-acre spacings on -- normally, there would be 40-acre spacing on this shallow depth. However, I'm sure there were some unorthodox wells drilled in this area. For instance, Stovall-Wood No. 2 and 3 are both in Unit letter G. Which would put them inside a 40-acre spacing.

Q. Do you have commingling approval from the various state and federal agencies?

A. I have it from the Commissioner of Public Lands office. I just received it, as a matter of fact, Monday.

Actually, we have been operating for a number of years under the impression that we already had a commingling agreement. We subsequently found out that we did not.

So we went through the process of requesting a commingling agreement. And we just got it approved by the land commissioner's office. We still have to get it approved by Oil Conservation Division and the BLM.

Q. This whole area has been operating on the basis of nonapproval. Is the ownership common in all those leases as far as the shallow formations, the same people own the same percentages throughout?

A. Under the different leases?

Q. Uh-huh.

A. Yes. But there's not -- I mean, there's not the same owners in all the leases, if that's what you're asking.

Q. Well, I guess my question is, how are you allocating oil production to the people who are entitled to receive it?

A. Okay. What we do, and this is what we just went through with the land commissioner's office. We have gone back to inception, and taken historical production back when we used to do tests many, many years ago.

And we've taken the total produced, divided by the production allocated by each of the leases, and used that percentage to allocate to the various leases so that we're making sure everyone's getting their right amount.

The state came out to check us to see if we were paying the state the proper amount for their acreage, for their lease, and we were. And that's why

it was approved.

MR. STOVALL: I don't have any other questions.

EXAMINER STOGNER: When was the Barber pool -- and that's what I'm going to refer to this as -- discovered?

THE WITNESS: Approximately 1937.

EXAMINER STOGNER: So it was discovered in '37. Were the nine wells drilled at the time?

THE WITNESS: Well, over a period of time. I believe approximately six or seven of the wells were drilled in the late '30s, early '40s. And then there were a couple of other wells drilled, the Stovall-Wood 3 I believe, and the Colglazier 3, I believe, were drilled -- not possibly -- they were drilled in the early '50s.

EXAMINER STOGNER: I know you weren't working for them back in 1943. But do you have any record or know of any water production prior to 1943 and the disposition of that water?

THE WITNESS: I don't. I don't know what they did with it prior to that, no. And I don't have anything in my records that indicates what they would have done with it before that.

EXAMINER STOGNER: Do you know what the

original TD, total depth, of this subject well is today?

THE WITNESS: As I recall, it was indicated that it was about 215 feet or -- excuse me -- 245 feet originally.

EXAMINER STOGNER: You referred to -- and I'm sorry -- a Bell survey or some sort of a survey?

THE WITNESS: Bell Petroleum surveys. It's just the name of a company.

EXAMINER STOGNER: What kind of a survey is that?

THE WITNESS: It's a -- could I have that, Bill, that survey?

They inject a dye into the water to trace it, a radioactive dye.

EXAMINER STOGNER: A radioactive tracer, and then what, run some sort of a Geiger?

THE WITNESS: I guess they run a Geiger tool down the hole and find out where it disappears. As I recall, they ran four slugs down this well. And the water loss intervals showed up the same place in all four slugs.

MR. STOVALL: None of it showed up in the potash mine, yet?

THE WITNESS: I don't know.

EXAMINER STOGNER: Now, there's several references to water at 50 feet. Do you have an analysis of that water?

THE WITNESS: Of the water that's lost?

MR. STOVALL: Well, you said water was coming into the well at about 50 feet. In other words, there's a water zone at 50 feet?

THE WITNESS: Yes, sir. There's definitely a surface -- that's also why we had trouble cementing. There's definitely water --

MR. STOVALL: The question is, do you have a sample of that water?

THE WITNESS: No, I do not have any sample of that water, no, sir.

EXAMINER STOGNER: Do you know if it's fresh or salt water?

THE WITNESS: I have no expert knowledge of that. We have never -- because the water was already, we felt, already damaged, we've never -- I mean, to go check it now would only tell you that it's damaged.

We don't have anything that goes back prior to our operation in that area or prior to the potash mines in that area to show what the water would have been before the potash mines were there, before we were there.

EXAMINER STOGNER: So you're talking about -- when you say "water damage", you're referring to damage caused by potash mining activity?

THE WITNESS: Yeah, I guess so. The water -- if you'll look at the water analysis, the water that's in the pond is a whole lot harder, has more chlorides, more sodiums, higher pH than the water that we're disposing. So we feel like our waters have a higher quality than what's in the Rustler. Why it is that way is for somebody else to decide.

MR. KELLAHIN: Point of objection: The qualification of this witness to make that kind of conclusion about the water quality based upon those two analyses, Mr. Examiner.

EXAMINER STOGNER: So noted, Mr. Kellahin. Let's refer to Snyder's Exhibit No. 1. And right under the date June 1990, it talks about a cut-out section of the upper Rustler formation. What does that mean?

THE WITNESS: I don't know. I tell you, frankly, I got this from the C-108 that was filed in 1968 by Mr. Light. And he referred to a cut-out section of the Rustler.

I was trying to tie this back in to that application so that the OCD could tie the two together. We did not realize, at this time even, that the OCD did

not have that C-108. And I refer to the same terminology that we use.

EXAMINER STOGNER: Do you have a copy of that C-108 from 1968?

THE WITNESS: Yes, sir.

MR. CARR: The top copy appears to be a carbon. Parts of it are hard to read. Mr. Light's handwritten copy is behind, which is the same thing, but it's easier to read.

EXAMINER STOGNER: Do you know if we have a copy of this on our file here?

THE WITNESS: I have not been through the OCD files. But I have been told by the OCD that they cannot find them.

MR. CARR: Mr. Stogner, I'll be happy to mark that as our Exhibit 4 and make copies available to Mr. Kellahin and you, so in case it doesn't exist elsewhere, at least it can be in the case file.

MR. STOVALL: I guess, for what purpose would it be offered?

MR. CARR: I'm only responding to a question from the Examiner as to whether or not it exists in the file. If you'd like, I'd be more than happy to make it available.

MR. STOVALL: I guess my initial reaction

is --

MR. KELLAHIN: It's not relevant, Mr. Examiner.

MR. CARR: I doubt that it's relevant.

MR. STOVALL: Unless the information contained therein were only for the technical, you know, as -- but I don't -- I mean, I kind of agree that it's not --

EXAMINER STOGNER: Mr. Carr, I'm going to let you have this back. We have it on record. So be it. And I'll -- any record that we have here at the OCD office in Santa Fe I'll make a part of this record today.

MR. STOVALL: Well, I guess I would -- I mean, I agree that that record is officially here, Mr. Examiner. But I think that we should not, by any means, infer that that record exists within the Division or that it ever did exist until we have some record of it. If we find it, great.

EXAMINER STOGNER: That's why I am relying on the files that we have available within the Division.

You mentioned something, or I caught something, about that you had just ran some 5-1/2-inch pipe?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: Could you enlighten me on that?

THE WITNESS: Yes, sir. We -- in fact, there's a -- I don't know if I have the copy of -- there was a C-103 filed just a few months ago. And I indicated on the C-103 that we were waiting -- we had to go to Midland to buy the pipe and have it specially coated on the inside.

And I made reference to that on the C-103 that we would be running it shortly. And we just recently completed running that 5-1/2 plastic-coated pipe in the well.

EXAMINER STOGNER: So your sketch on page six is not current?

THE WITNESS: The only difference is that -- it's still 5-1/2-inch pipe, and it's still set at 90.6 feet exactly. We had it cut to the exact length and we then plastic coated it. The only difference is that it's 5-1/2 plastic-coated pipe now instead of 5-1/2 pipe.

EXAMINER STOGNER: Okay. Are there any other questions of this witness?

MR. CARR: No questions.

EXAMINER STOGNER: You may be excused. Let's take a ten minutes recess.

(Thereupon, a recess was taken.)

EXAMINER STOGNER: The hearing will come to order. Mr. Kellahin?

MR. KELLAHIN: Thank you, Mr. Examiner.

T.E. KELLY,

the witness herein, after having first been duly sworn upon his oath, was examined, and testified as follows:

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Kelly, for the record, would you please state your name and occupation?

A. My name is Tim Kelly. I'm president of Geohydrology Associates in Albuquerque.

Q. Do you hold any professional degrees, Mr. Kelly?

A. Yes, sir. I have a bachelor's degree, major in geology, and a master's degree with major in geology.

Q. Are you a practicing geohydrologist?

A. Yes, sir.

Q. Have you testified in that capacity and been recognized by this Division as an expert witness?

A. Yes, I have.

Q. Have you been retained by Mr. Squires of Snyder Ranches Inc. with regard to an investigation of the matters surrounding the Barber Oil Company's

disposal well that's been the subject of the discussion here this afternoon?

A. Yes, sir.

Q. Have you had an opportunity to study that issue and reach certain conclusions?

A. Yes, I have.

MR. KELLAHIN: We tender Mr. Kelly as an expert geohydrologist.

EXAMINER STOGNER: Are there any objections?

MR. CARR: No objections.

EXAMINER STOGNER: Mr. Kelly is so qualified.

Q. (BY MR. KELLAHIN) Let me ask you, Mr. Kelly, what you have concluded with regards to this disposal well being utilized in the proposed zone of disposal at 195 feet to approximately 240 feet. Do you have an opinion as to whether or not that well poses a risk to groundwater?

A. Yes, I do.

Q. And what is that opinion?

A. I believe that it's the source of the contamination of the groundwater in that area.

Q. Can you describe for us this area from your own personal knowledge?

A. Yes, sir. We've done a great deal of work, my firm, with me as a principal investigator in that

area. In 1978, '79, we did an extensive evaluation of the water resources in the potash area for the Bureau of Land Management. We drilled approximately 30 wells. We examined water levels, water quality, and that type of thing. And at the time, as a matter of fact, we made an inventory of the wells at the Wood Ranch.

Q. This was approximately 1978?

A. '78, '79, yes, sir.

Q. What was the reason that your company and you were retained to do this work?

A. We were hired by the Bureau of Land Management to try and determine whether or not there was any potable water in the vicinity of the potash mining, primarily Nash Draw and Clayton Basin, and what consequences potash mining was having on the hydrologic system.

Q. What did you conclude about the presence of fresh water in this area?

A. That there is potable water throughout most of the area.

Q. Is the potable water in this area of sufficient supply to constitute an adequate source of potable water?

A. Yes, sir.

Q. Let's deal with the geology, if you will.

Have you been out at this ranch facility?

A. Yes, sir.

Q. Describe for us the geology.

A. The well in question is located in what is the topographic feature commonly referred to as Clayton Basin. And Clayton Basin is a collapsed structure that was caused by solution of the Salado formation causing the overlying Rustler formation to collapse.

So that the entire geologic sequence is the Rustler formation, which is dropped down, creating the basin. And the surface geology shows that within the bottom of the basin there are beds that are standing on end, folded, badly faulted.

And then we drilled a number of wells, and we came to the same conclusion. That this entire area is a collapsed structure with virtually no integrity or continuity in the stratographic section.

Q. Let me direct your attention to what is marked as Snyder Exhibit 3. Would you identify and describe that for us? It's the literature reference for --

A. I have to put my glasses on.

Q. Yes, sir. I've got mine on too.

A. This is a lithologic log which I took from a publication entitled Surface Geology of the Nash Draw

Quadrangle, Eddy County, New Mexico, U.S. Geological Survey Bulletin 1141B. And it's pretty much been considered a bible for the geology of the area.

I wanted to use this exhibit simply to show you the lithological character of the Rustler formation and various members and so forth.

It shows it has sand, siltstone, a lot of gypsum and anhydrite as well as some limestone, two limestone members.

Q. Take this lithologic log, if you will, and approximate for us where on the vertical scale you'll be at the surface in this area so that we can see the lithology from the surface down to the Salado.

A. According to Mr. Garringer's testimony, there's approximately 450 feet of Rustler formation. Meaning that almost the entire section is present where the well was drilled.

So the disposal well would have been spudded in the Forty-niner member or the upper part of the Rustler.

Q. With this log in front of you, tell me now what has happened geologically in the relationship between the Rustler and the underlying Salado formation?

A. Well, at that particular site, disregard the presence of the Pierce Canyon redbeds, the Gatuna

formation and the surface material so that you really have at that site, the Rustler formation sitting on top of the Salado.

The Salado has -- there's been solution of the salt in the Salado creating a void into which the Rustler formation collapsed. So that the entire Rustler formation in Clayton Basin has dropped down.

Q. Give us a sense of the composition of the material from the surface to the top of the Salado in the area of the injection well?

A. Well, it's primarily shales and various types of anhydrite as well as two limestone members, the Magenta and the Culebra.

And one other thing I might mention is, there has been a lot of solution of the anhydrite in the gypsum in the Rustler, so that there is what is commonly referred to as box works. It's just thin shale partings that remain from the solution of the salt itself, or the evaporites. So they're gone, and there's just jumbled shale partings that remain.

Q. Assume, if you will, for purposes of the question, that we have an injection well that has absolute integrity from the surface to 195 feet.

A. Okay.

Q. Will injection into this injection well at

195 feet cause that injected produced water to remain confined to the injection interval?

A. No, sir.

Q. Where will it go?

A. It will go up.

Q. Why?

A. Because that's the path of least resistance. There are no persistent strata to force it or to cap it and hold it in place. And so the path of least resistance would be upward.

Q. In this area, you were involved in drilling how many fresh water wells?

A. Well, we drilled approximately 30 exploratory wells and collected samples and so forth.

Q. To approximately what depth are you investigating sources of fresh water?

A. All of those wells were drilled with air. And we drilled them to a depth of -- well, until we hit the first water zone. And that was anywhere from a few feet below land surface, maybe only 15 or 20 feet, to as much as 300 feet.

Q. Do you find any evidence in this area that there is going to be a barrier to the upward flow or migration of injection waters at 195 feet upwards?

A. No, sir.

Q. Is there anything to physically separate, geologically separate, the fresh water sources from the injection formation waters?

A. No, sir.

Q. Let's look at Exhibit No. 4, which is the topo map?

A. Yes, sir.

Q. Help us identify the area of the Wood Ranch and the Barber Oil disposal well.

A. The Wood Ranch and the disposal well is underneath the large circle located near the center of the map. The smaller circles are all test holes which we drilled for the Bureau of Land Management.

Q. Show us where we find the Eddy Potash brine lake?

A. It's shown by the dark shaded area about a mile and a half north of the Wood Ranch.

MR. STOVALL: Mr. Kellahin, just to make sure we're clear for the record, the Wood Ranch is in Section 20 there, and it says "Ranch" next to it; is that correct?

MR. KELLAHIN: Yes.

Q. (BY MR. KELLAHIN) Have you made an investigation of the reported information with regard to the quality of domestic water in this area reported in

the literature?

A. Yes, sir.

Q. Let me turn your attention to Exhibit No. 5. Would you identify and describe that for us?

A. That is a table -- a copy of a page from table 1 of the Records of Wells in Eddy County, New Mexico. That's Groundwater Report No. 3. That was published by the U.S. Geological Survey and the Bureau of Mines, Mineral Resources in 1952.

This was an assessment of the geology and groundwater resources in Eddy County. And table 1, you'll notice about halfway down the column is the Wood Ranch, and that's going by the location number, which is township, range, section, and quarter section, it would be located in 20.30.20.120.

And then below that, is 20.30.21.30. And the owner name is Doe or Ditto. That's also Wood Ranch. So there are two windmills at Wood Ranch, both of which were inventoried during this Eddy County groundwater investigation.

The lower part of this illustration is a continuation of the table. And it gives the water level in the second column and in the third column the day in which it was measured. And according to this, the water level was measured in those two wells on December 22nd,

1948. I might also mention that use of water, in the second to the last column, it identifies it as "D" which is domestic.

Q. We've characterized a fresh water source in this area for discussion with Mr. Garringer of the Wood Ranch well?

A. Yes, sir.

Q. Can you identify which of the wells on Exhibit 5 would be the Wood Ranch well?

A. That would be the one that's identified as 20.30.20.120.

Q. Let's go now to Exhibit 6. Identify and describe for us Exhibit 6.

A. That is a copy of a page from table 3 of the same document. And using the location number in the left-hand column, the fourth from the bottom is 20.30.20.130. That is the well, one of the wells there at the ranch. And it gives a chemical analysis of that water.

Q. The Wood Ranch well, 20.13?

A. This one would be the one that -- the sample shown here would be the well that's near the pond.

Q. Okay. How far approximately is that well from the injection well?

A. A few hundred feet.

Q. What is the quality of the water in that domestic well as reported in the literature?

A. The total dissolved solids, which is the third column from the right, shows that it contained 3,050 parts per million dissolved solids. In looking at that entire dissolved solids column, you can see that that's certainly within the range of most of the water samples in that area, that part of Eddy County.

Q. Is that water of a quality sufficient to be used for domestic purposes?

A. Yes, sir. If you look at the principal anions and cations you'll see that it's calcium sulphate type water. It would be considered gypy, but it's certainly suitable for stock or domestic purpose.

Q. Mr. Garringer said that he had caused inquiry to be made at the state engineer's office concerning their information on fresh water sources. Did you hear that?

A. Yes, I did.

Q. Are there other ways to go about searching for information to find fresh water sources?

A. The way that we did it for the BLM is to inventory all of the wells, go to the various wells in the area, collect water samples, measure the depth and measure the water level. That's the standard procedure.

Q. Do the records at the state engineer's always disclose the identity and composition of water that you find out onsite?

A. No, sir.

Q. What is the approximate reported depth of the fresh water for the Wood Ranch domestic water well?

A. Approximately 25 feet below land surface.

Q. Do you see any evidence to confine the injected waters from the disposal well such that they would not migrate up into and cause contamination of the domestic water source?

A. No, sir. I'm sure they would.

Q. Have you made an investigation to determine whether or not there is any effect upon the Wood Ranch water well of being south of the Eddy Potash Mine brine lake?

A. Yes, we did.

Q. And is that potash brine lake a potential source of contamination for the fresh water well?

A. No, sir.

Q. Why not?

A. Because the water level in that lake is approximately 13 feet lower than the static water level in the well at Wood Ranch. So the direction of groundwater flow is from the ranch to the lake, not from

the lake to the ranch.

Q. Let's talk about the Wood Ranch pond. Are you familiar with that pond?

A. Yes, sir.

Q. Why is that pond there? What causes that water to collect there?

A. I believe that it's the expression of the disposal water.

Q. Would that pond exist and continue to hold water if the levels that it contains water -- Mr. Garringer says he sees water standing all the time. Will it stay in that pond without being in communication or supported by the injected water going into that disposal well?

A. If I understand the question, the evaporation rate in that area should be such to eliminate any source of runoff to that pond. So if there is a constant source of water there, and I know from my own experience, it was there in '78 and is still there, there's got to be some source other than surface runoff.

Q. Natural precipitation and runoff would not explain the presence of that pond unless it was supported in some other fashion?

A. No, sir. Besides, it's very highly

mineralized.

Q. Is that pond being recharged by the potash company's brine lake?

A. No, sir.

Q. Why not?

A. Because the pond is -- the pond must be 20 feet or more higher, topographically, than the brine lake.

Q. As an expert in this area, Mr. Kelly, do you have a recommendation to the Examiner as to what you propose to be done with this application?

A. My recommendation would be that use of this disposal well be eliminated.

Q. And why is that, sir?

A. Because in the event that the property owner has to use those windmills at some future date when water from the mining companies is no longer available, then they would have no other source of water.

Q. In your opinion, would the continued use of this disposal well for injection purposes in the interval posed by the applicant constitute a threat to the environment, public health and fresh water?

A. Yes, sir, it would.

MR. KELLAHIN: That concludes my examination of Mr. Kelly. We move the introduction of his exhibits.

EXAMINER STOGNER: Are there any objections?

MR. CARR: No objections.

EXAMINER STOGNER: Exhibits 1 through 6, I believe --

MR. KELLAHIN: No, sir. 3 through 6.

EXAMINER STOGNER: 3 through 6.

MR. STOVALL: Mr. Kellahin, did you want to admit 1 and 2? You didn't admit them.

MR. KELLAHIN: I would tender that now for admission of Exhibits 1 through 6.

EXAMINER STOGNER: Right now we have 3 through 6 admitted. Mr. Carr, do you have any --

MR. CARR: No objections.

EXAMINER STOGNER: No objections. Exhibits 1 and 2 of Snyder Ranches will be admitted into evidence at this time. Mr. Carr, your witness.

EXAMINATION

BY MR. CARR:

Q. Mr. Kelly, I think you stated that you were part of the study sponsored by the BLM in 1978, '79 of the water in the area; is that correct?

A. Yes, sir.

Q. At that time you indicated there were approximately 30 wells actually drilled in the area?

A. In the area of our BLM investigation.

Q. Now, the area that you were investigating, it included the area on which the Barber disposal well is located?

A. Yes, sir.

Q. If I look at your Exhibit 4, are the spots shown on that exhibit of -- the small spots -- wells that were drilled as part of that 1978 study?

A. Yes, sir.

Q. Is there any reason that all the wells are to the south and east of this area and none are to the north and west?

A. Well, some of them are in the north.

Q. I mean, if we draw a line that sort of goes southwest, northeast, it appears to me that the wells were virtually south and east of the area. Is there any reason that you cut off the drilling at that point?

A. This is just a photocopy of the area around the Wood Ranch. As I mentioned, the purpose of the study was to determine the effects of potash mining at this particular location.

Amex, at that time, was to the north. And there was one well that was drilled in section 35 up here, which would have been to the north and east. But most of the potash mining other than -- at that time it was PCA, now Eddy Mining. Duval was over here. The

other mining companies were over here. So what we were drilling --

MR. KELLAHIN: Excuse me, Mr. Kelly, you'll have to tell us where "over here" is.

A. I'm sorry. So what we were doing was putting most of our drilling in the area where the potash mining was occurring.

MR. STOVALL: Is "over here" to the south and east, is that where you were pointing?

THE WITNESS: "Over here" is to the east, yes, sir.

Q. (BY MR. CARR) if I look at this topographical map, it appears to me that the wells are actually where the surface of the ground is above the potash mine that is shown just north of this disposal; is that right?

A. The land surface elevations of the test hills were topographically higher than the mine? I'm not sure that I'd make that statement.

Q. In your testimony, I was confused, and if you could clarify for me, was the reason the lake at the potash mine just due north of the disposal well, was the reason that you concluded that that couldn't have contaminated or wasn't a source of potential threat to the Wood Ranch water well, was it because the surface of

the lake was higher or lower than the water?

A. The surface of the lake is lower than the static water level in the well at Wood Ranch.

Q. And so the general movement of the groundwaters would be away from the potash mine -- I mean, would be north of the -- west of the potash mine and accordingly away from the Ranch wells; is that what you were saying?

A. It would be from the ranch well towards the lake.

Q. Now, where on this Exhibit 4 would be the ranch well?

A. Both would be covered by the large dot.

Q. And so the movement of the groundwaters would be from that dot toward the lake?

A. Yes, sir.

Q. And the wells that you drilled in your '78 study were the other side of that. Are they also -- would the water level be higher off to the south and east than the water level in the lake?

A. In some cases they would be, in some cases they wouldn't be.

Q. Were there wells to the north and west of this disposal well that were drilled as part of the '78 study that aren't shown on the map just because it

covers only a portion of the area, and all 30 wells aren't shown, obviously?

A. I don't think we drilled any to the north and west.

Q. You concluded there was potable water in the area?

A. Yes, sir.

Q. That by definition is what, 10,000 parts per million or less, or what were you using to define potable water?

A. Well, potable is a generic term. The water -- most of the water as shown by one of the exhibits has approximately 3,000 parts per million dissolved solids or less. And that's fairly common for the Rustler formation.

Q. And that, in your opinion, would be potable water?

A. It would certainly be adequate for stock watering. And it could be used for domestic purposes if you didn't have any other water.

Q. So when you're saying there's potable water in the area, you're including water in the Rustler formation in that conclusion?

A. Yes, sir.

Q. Is that groundwater in the Rustler formation,

is that what we're talking about?

A. Yes, sir.

Q. That's a correct term?

A. Yes, sir.

Q. Surface water would be on top of the surface; am I right on that?

A. That's correct.

Q. Were there also surface waters -- I don't know -- were there also surface waters that you were analyzing or considering as part of 1978 study?

A. Yes, sir, there were. We collected samples for most of the potash mine disposal ponds and some surface sources.

Q. Were there surface sources of water that, in your opinion, were also potable back in 1978?

A. Not that I recall.

Q. So when we talk about the potable water, we're talking about groundwater and we're also talking about the Rustler formation?

A. Yes, sir.

Q. Now, when you concluded that water in the pit or the disposal pits at the mine that's due north of this well weren't contributing to or threatening the quality of the water in the Wood Ranch well, was your comment just confined to that -- are you saying that you

don't think that that surface disposal is a threat to fresh water in the area, or was your comment just directed to the Wood Ranch well?

A. There are several other wells in the area. There were two at the Wood Ranch themselves. There's one to the northeast which is an abandoned stock well. There was also a well which is shown on this map, you can read it faintly, to the west of the potash mine. It's called a chimney well.

Those were stock wells which were, at one point in time, used for stock purposes. And whether or not they were contaminated by the disposal well or not, I don't know.

Q. Are there other potash mines in the area that, in your opinion, could have contributed to water problems at the Wood Ranch?

A. Well, there is a mine to the east which used to be called Duval. I'm not sure who it is now. But midway between there and the Wood Ranch is a surface disposal site for Barber Oil Company which they're putting brine on the ground.

So I would be inclined to think that if anything was coming from the east, it would be coming from that source and not from Duval 'cause it's closer.

Q. How far is that Duval pit, do you know

approximately?

A. It's probably three miles.

Q. Are there any other disposal efforts or facilities in the area that you're aware of that could contribute to this problem?

A. Disposal wells?

Q. Wells or surface disposal facilities.

A. Not that I'm aware of.

Q. Now, since 1978, have you done any follow-up work on the area to update the information developed at that time?

A. Yes, sir.

Q. And have you recently sampled the water, the quality of the water in the Woods' wells?

A. In August I measured the depth of the well. And then subsequently Mr. Squires collected a water sample from the well.

Q. Was that sample analyzed?

A. Yes, it was.

Q. How did that analysis compare to what you had discovered in 1978?

A. We didn't get an analysis in 1978.

Q. What did it show? What was the data shown on Exhibit No. 6, where -- I think that's where it was -- we had the 3,000 parts per million dissolved solids, was

that for this well?

A. Yes, sir.

Q. How did we get -- is that from the 1978 study?

A. No, sir. The date that was collected was May 1st, 1950.

Q. How did the total dissolved solids from the most recent analysis on the well compare to this?

A. It was much more highly mineralized.

Q. You have any idea what range we were in?

A. Approximately 17 thousand parts per million dissolved solids.

Q. That well has been taken out of service, has it not?

A. Yes, it has.

Q. At 17 thousand parts per million, does that well, in your opinion, have any potential use later on as being returned as a water source, either for cattle or other domestic purposes?

A. It's my opinion that if the disposal well were taken out of operation that the potable water could conceivably come back into that well.

Q. Was the well taken out of service because of the contaminants in the water?

A. It's my understanding from talking with Mr.

Squires, that most of the windmills in that area were discontinued because of the expense of operating them and maintaining them when there was much better water available from the pipelines going to the mining companies. So they are taking advantage of the water from the Oglala formation while it's available.

Q. Do you know when that might have occurred?

A. When the pipelines were put in?

Q. Yes.

A. I would have to assume from the basis of this data, it was some time after 1950.

Q. You talked about there being a collapse, that the salt section of the Salado formation below the Rustler having collapsed?

A. Yes, sir.

Q. That has caused fracturing throughout the formation? Is that a correct characterization of it?

A. Yes, sir.

Q. It permits water from the Rustler and surface waters to commingle or mix; is that a fair statement?

A. Yes, sir.

Q. That is not a phenomenon directly related to disposal, that's something that's been occurring naturally in the area; isn't that right?

A. Yes, sir.

Q. If this injection- or disposal-produced water is the cause of the development of the pond, wouldn't you expect the constituent elements in a water analysis comparing the disposal fluid and the water in the pond to somewhat relate to each other, or could they be entirely disparate readings on chlorides and various other constituent elements?

A. Well, it would depend on a number of factors. When it was collected during the year, because of the amount of evaporation off the pond. It could depend on the quality of the disposed water. It could depend on the amount of runoff or rainfall in the area. It could depend on a lot of factors, and it would probably change throughout the year.

Q. In your opinion could there be dramatic disparaties between the water in the pond and the injection fluid and still have the injection fluid as the source of the pond?

A. How do you define "dramatic"?

Q. A variance of 50 percent in the chlorides. 50 percent less in the pond than, say, in the injection fluid. Would that tell you anything?

A. Not unless I had a series of analyses over a period of time, perhaps monthly samples for a period of time from both the disposal well and from the pond

itself. I think that's the only way you could really tell.

Q. You would expect the contaminants in the pond to be at least as high as what you have in the disposal well, would you not?

A. No.

Q. And so any single analysis comparison wouldn't tell you anything?

A. No, sir.

Q. Has there been any follow-up BLM studies since the 1978 study that you're aware of?

A. Not that we've done for the BLM or that I'm aware of.

Q. Would you be aware if someone else had updated the study?

A. I think I would.

MR. CARR: That's all I have. Thank you.

EXAMINER STOGNER: Mr. Stovall?

EXAMINATION

BY MR. STOVALL:

Q. Mr. Kelly, am I hearing you say that there is fresh water that is protectable in this area?

A. Yes, sir.

Q. Make sure I understand this correctly. One is that you think that the water at the -- I guess it's

the Wood Ranch well -- produced -- was at one time fresh water. Potable is, as you say, sort of a -- how does it taste to you? It can be an element of that, right?

A. Yes.

Q. By fresh, we're talking about the 10,000 parts per million TDS as defined in the statute and the rules; is that correct?

A. Yes, sir.

Q. And you think that Wood Ranch well produced fresh water at one time?

A. Yes, sir.

Q. And you think that potentially it could be a source of fresh water again if contaminated water or high TDS water were not allowed to get into the formation?

A. Yes, sir.

Q. I guess the second question is, is there any other -- do you have an opinion as to whether there is other fresh water perhaps further away that may be affected by -- I guess 5,000 barrels a day sounds like a lot of water to me to put into a formation 180 feet below the ground. Is that a good assumption?

A. Yes, sir, it is.

Q. Would it be going pretty far under ground if it's taking it out of a vacuum at that rate?

A. I made a rough calculation that if you assume that the injection zone has 20 percent porosity, that the amount of water that's been put into that well could saturate from 200 feet to land surface to an area of approximately 350 acres.

Q. And if you reduced the porosity or lowered the height of the zone that was being saturated it would have a greater radial effect?

A. Yes, sir.

Q. Over what period of time, I guess the question would be, over what period of time would that take to do that?

A. You mean for the fresh water to come back?

Q. No. I'm saying -- you said 350 acres. And I think I missed the volume part. The rate is about 5,000 a day from Mr. Garringer's testimony. What period of time would it take to get to the --

A. I figured 50 years, from '43 to '93.

Q. And if you continued to put water in there at this rate, it would go even further?

A. Yes, sir.

Q. And there is fresh water further out that may still be fresh even though -- there's potential for fresh water that you don't know about, is that --

A. Well, the number of the wells which we

drilled for the BLM were sampled, not all of them. And a great many of them contained water of the same quality that was reported in the Wood Ranch well in 1950.

So that seems to be the norm for the Rustler, approximately 3,000 parts per million dissolved solids throughout this area.

Q. Now, in your discussion, I think in response to Mr. Carr's comment, you indicated that the water well drilling in the southeastern portion of the map, southeast of the ranch, the drilling was done there because that's where there was a need for water; is that correct?

A. No. The drilling was done there because there was potash mining on the east and on the north primarily, and we were trying to determine the effects of the disposal into Nash Draw and Clayton Basin which is topographically lower. So that's where you would expect the contamination from the mining companies to go.

Q. And you did find fresh water in those wells that were drilled?

A. Yes, sir.

Q. Is there anything in your knowledge of the area that would cause you to believe that if you'd gone to the northwest that you might not have found fresh --

that you probably wouldn't have found fresh water?

A. No. There is fresh water in this area.

MR. STOVALL: I don't have anything further.

MR. CARR: Could I ask something?

EXAMINER STOGNER: Mr. Carr?

EXAMINATION

BY MR. CARR:

Q. Mr. Kelly, I didn't hear you, I think. You calculated that the water that has been saturated to date would have filled -- did you say 350 acres? Is that what you said?

A. Yes, sir.

Q. Did you say a 200-foot interval?

A. I said that -- I think my calculation was from the surface to a depth of 207 feet which was the original total depth of that well until it was worked over in 1991.

Q. Then you were assuming a 20 percent porosity in that area?

A. Yes.

Q. How did you get the volumes that you were using for your calculation?

A. The volume that I used came from the files of the OCD. It was a letter in which the figure was given of 6,000 barrels per day was the average discharge or

the average disposal rate.

Q. And you used that for a 50-year period?

A. Yes, sir.

MR. CARR: That's all I have. Thank you.

EXAMINER STOGNER: Mr. Kellahin, any redirect?

MR. KELLAHIN: Only to make certain of one point. Mr. Kelly, having studied this area, is there any other -- have you eliminated any other source of potential contamination of the Wood Ranch water well other than this disposal well?

THE WITNESS: I'm not aware of any other source of contamination other than the disposal well.

MR. KELLAHIN: No further questions.

EXAMINER STOGNER: Referring to Exhibit No. 3, this is the type log, I guess you could say. If I heard you right, the surface out here is within the Forty-niner's member?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: Within the other, or let's keep with the Rustler formation. I see the other members shown here in your diagram within Rustler formation, are those also present in this general area or the area underlying this well?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: How do we see the groundwater distributed in the Rustler formation? Is it permeable throughout, or are there lenses or layers, impermeable layers, that would cause a vertical migration to be stopped at different intervals?

THE WITNESS: Once you get out of the topographic low of Clayton Basin, the formations are not disturbed. So they are horizontal. And most of the groundwater is present in the Forty-niner member, in the sands of the Forty-niner member. So that when stock wells are drilled in this area, they're generally completed in the sandstones of the Forty-niner member.

EXAMINER STOGNER: Of the depths that I have seen today on referring to the total depth of the well being around 400 feet -- I'm sorry 245 feet -- and then the injection interval, what member of the Rustler formation would that be, in your opinion?

THE WITNESS: Based on this lithologic log, it would be in the -- probably the lower Tamarisk or perhaps in the Culebra.

EXAMINER STOGNER: Is there an impermeable layer or anything between the Forty-niner's and that Tamarisk member or the Culebra member?

THE WITNESS: No, sir. Because of the collapse of the basin, all of the strata have been

disrupted. And as I mentioned, there were outcrops there in which the formations are standing vertically.

So there wouldn't be anything -- any continuity in any of those beds.

EXAMINER STOGNER: So even any rainwater that would collect or fall in this area would find its way or migrate down into these areas eventually.

THE WITNESS: Yes, sir. Except that the fresh water is less dense than salt water. So it actually would perch on top and accumulate on top.

EXAMINER STOGNER: Now, I'm also trying to visualize the accumulation of salt water in there with what you just said. And I'm assuming in this general area, down south of this well and the ranch, that the fresh waters would be flowing northward into the -- what is that depression -- the Chimney wells?

THE WITNESS: Clayton wells, yes, sir.

EXAMINER STOGNER: Clayton Lake, I guess?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: Is what I'm saying correct on that?

THE WITNESS: Yes, sir.

EXAMINER STOGNER: Okay. As this fresh water was migrating and it came up on the -- if this be the case -- came up on the plume or the contaminated salt

water, what path, then, would that fresh water take? Would it push the salt water out, would it go over?

THE WITNESS: It would probably go over. There would certainly be some mixing with, but it would probably go over since it is less dense.

EXAMINER STOGNER: Within the Rustler formation, what is the lowermost impermeable layer, would that be the Salado formation? I mean, eventually groundwater's got to stop its downward percolation.

THE WITNESS: It generally is believed in that area that the top of the Salado is where water -- where it has hit an impermeable barrier to vertical -- to downward movement.

EXAMINER STOGNER: Would you have an opinion, referring to Exhibit No. 5, this data, being collected in 1948, had the same data been collected in, say, 1942, what would have been the, say, total dissolved solids or the chlorides? Would that have more matched some of the other numbers shown in Exhibit No. 6?

THE WITNESS: Since the analysis of total dissolved solids shown in the 1950 sample is very similar to the other analyses in that area, my conclusion is that that's probably the original chemical quality of the water. And that at the time the sample was taken on May 1st, 1950 it had not yet been adversely

impacted by the disposal well.

EXAMINER STOGNER: Have you done any calculations to support that claim?

THE WITNESS: No, sir.

EXAMINER STOGNER: Are there any other questions of this witness?

MR. KELLAHIN: No, sir.

EXAMINER STOGNER: You may be excused. Mr. Kellahin?

MR. KELLAHIN: That completes our presentation, Mr. Stogner.

EXAMINER STOGNER: Okay. Mr. Carr, do you have anything further?

MR. CARR: We have nothing further in this case, Mr. Stogner.

EXAMINER STOGNER: Any need for closing statements at this time?

MR. KELLAHIN: I see none.

EXAMINER STOGNER: Mr. Carr? I would like, in this instance, rough draft orders from both of you.

MR. KELLAHIN: All right, sir.

EXAMINER STOGNER: You can work together if you'd like.

MR. CARR: I doubt that we will.

MR. KELLAHIN: We work better apart, Mr.

Examiner.

EXAMINER STOGNER: Any time frame on that that you would -- I understand that in two weeks you're both going to be going to a --

MR. KELLAHIN: We're going to school.

MR. CARR: If we could try to have those filed before we leave, which would be within two weeks.

EXAMINER STOGNER: All right. If there is nothing further in this case, then hearing adjourned. This case will be taken under advisement pending the requested information.

(The foregoing hearing was adjourned at the hour of 3:30 p.m.)

CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)

COUNTY OF SANTA FE)

I, Lisa Danner-Suggs, Certified Court Reporter and Notary Public, HEREBY CERTIFY that I caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a true and accurate record of the proceedings of said hearing.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL, November 18, 1993.

LISA DANNER-SUGGS
CCR No. 257

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10772, heard by me on 4 November 1993.

, Examiner
Oil Conservation Division